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THE
VOYAGE OF H.M.S. CHALLENGER.

ZOOLOGY—VOL. XXX.
PLATES.

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CARDED
APR 1858
REPORT

ON THE
SCIENTIFIC RESULTS

OF THE
VOYAGE OF H.M.S. CHALLENGER

DURING THE YEARS 1873-76

UNDER THE COMMAND OF
CAPTAIN GEORGE S. NARES, R.N., F.R.S.
AND THE LATE
CAPTAIN FRANK TOURLE THOMSON, R.N.

PREPARED UNDER THE SUPERINTENDENCE OF
THE LATE
Sir C. WYVILLE THOMSON, Knt., F.R.S., &c.
REGIUS PROFESSOR OF NATURAL HISTORY IN THE UNIVERSITY OF EDINBURGH
DIRECTOR OF THE CIVILIAN SCIENTIFIC STAFF ON BOARD
AND NOW OF
JOHN MURRAY, LL.D., PH.D., &c.
ONE OF THE NATURALISTS OF THE EXPEDITION

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PLATES

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REPORT on the ASTEROIDEA collected by H.M.S. CHALLENGER during the years
1873-1876.

By W. PERCY SLADEN, F.L.S., &c.

*(The Manuscript was received in Instalments between 15th March 1886
and 21st January 1889.)*

EDITORIAL NOTE.

THE collection of ASTEROIDEA is one of the most important made during the voyage of the Challenger. The late Sir C. Wyville Thomson paid considerable attention to these organisms, and at one time had the intention of describing the new species discovered during the Expedition; with this end in view, indeed, he had a few of the specimens figured and lithographed.

Eventually, however, the whole collections were handed over to Mr. W. Percy Sladen for examination and description. The result of Mr. Sladen's work, extending over many years, is now presented in this magnificent Report, which forms Part LI. and Volume XXX. of the Zoological series of Reports, the text and plates being bound up in separate parts.

Not only on account of the large number of forms, but also on account of their representative character, the Challenger collection is unquestionably the most important contribution to this group of animals that has ever been made.

In the Report, supplementary to the treatment of the Challenger material, a compact account of the whole group has been aimed at. Thus (1) under each family an account of all the genera included therein, whether Challenger or not, has been given, and where necessary the grounds on which the classification has been adopted are discussed; (2) under each genus there is a statement of all the known species which are recognised as belonging to that genus, with an account of their geographical distribution: this presents a compact idea of the composition and distribution of each genus; (3) a complete list of all the known species of

THE VOYAGE OF H.M.S. CHALLENGER.

recent Asteroidea, with their geographical and bathymetrical distribution, and a full account of all synonyms and changes of name are given; every known starfish is believed to be included, and the recognition of "good species" and "synonyms" is based on personal observation (except in the case of some American types and a few recently described from the French dredgings).

The Report may be considered a monograph on the group, though of course it need hardly be said that previously described and recognised species are not re-described. An entirely new classification of the Asteroidea has been given—it was very unsatisfactory and quite unworkable previously.

All naturalists who appreciate careful and accurate work will join with me in congratulating Mr. Sladen on the completion of his valuable memoir, which extends to 935 pages, and is illustrated by 118 lithographic plates and a map.

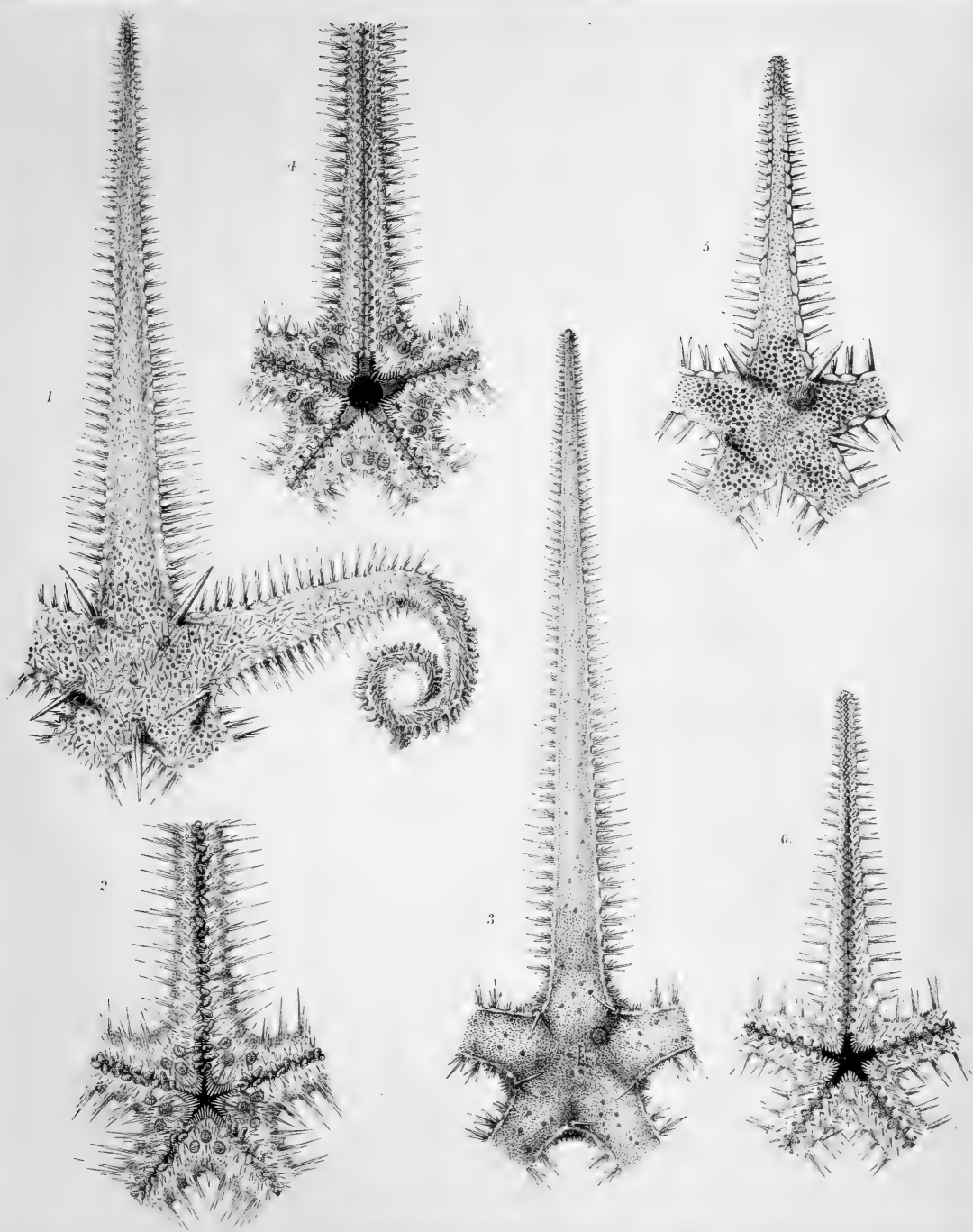
JOHN MURRAY.

CHALLENGER OFFICE, 32 QUEEN STREET,
EDINBURGH, *January 23, 1889.*

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Murphy, Bro. Co.

W.H. Crocker del.

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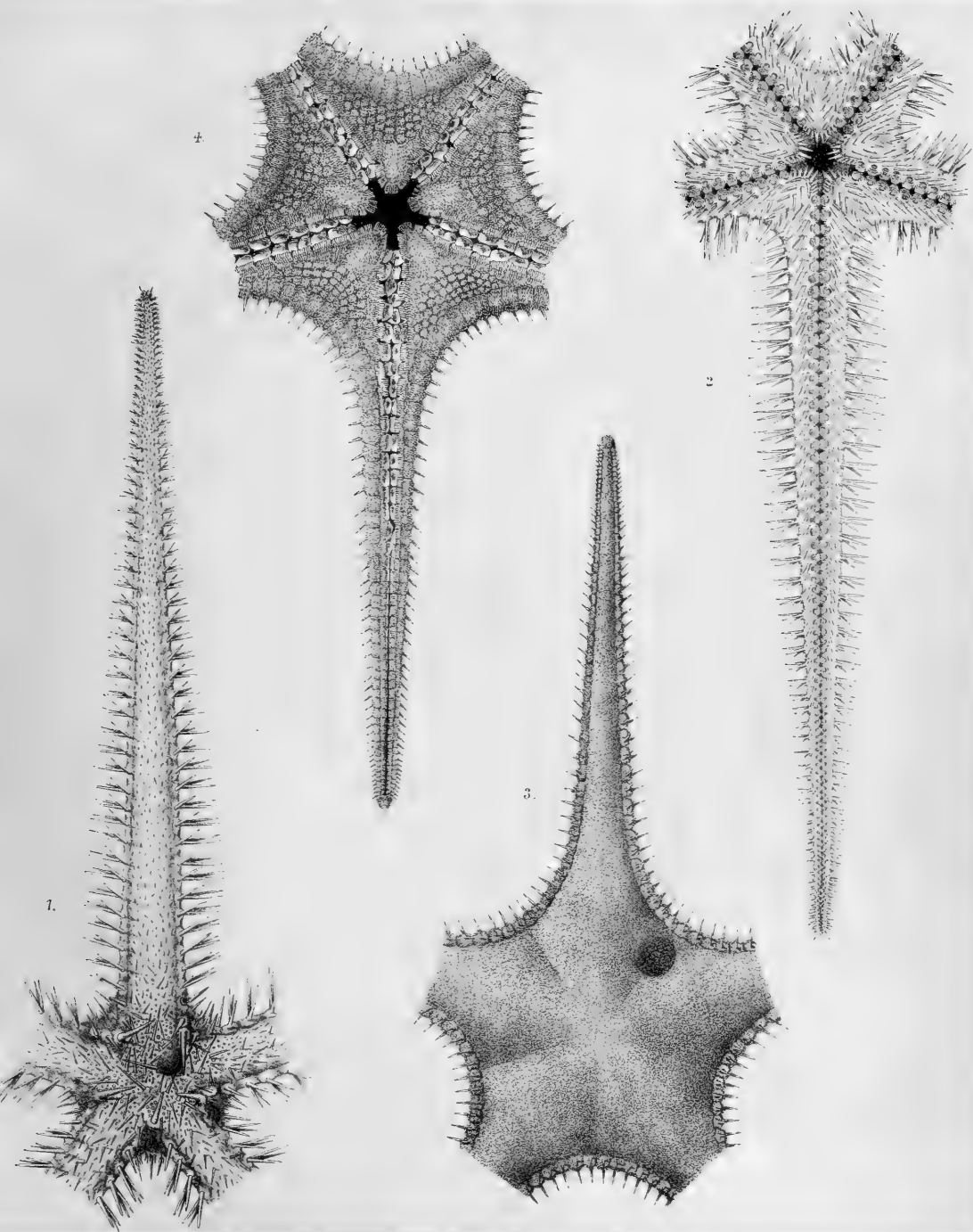
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Crowther del.

Mintern. Bros. lith.

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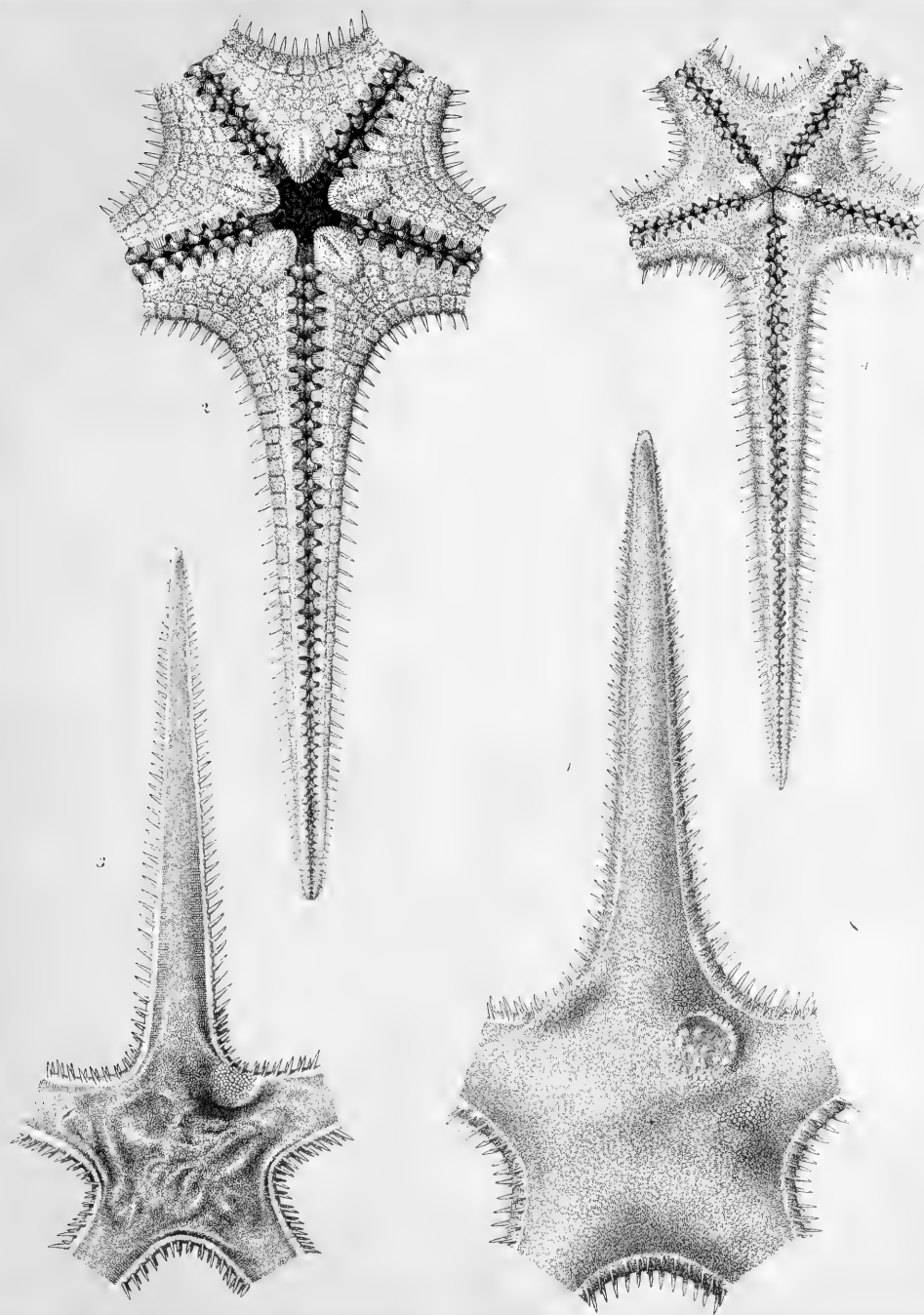
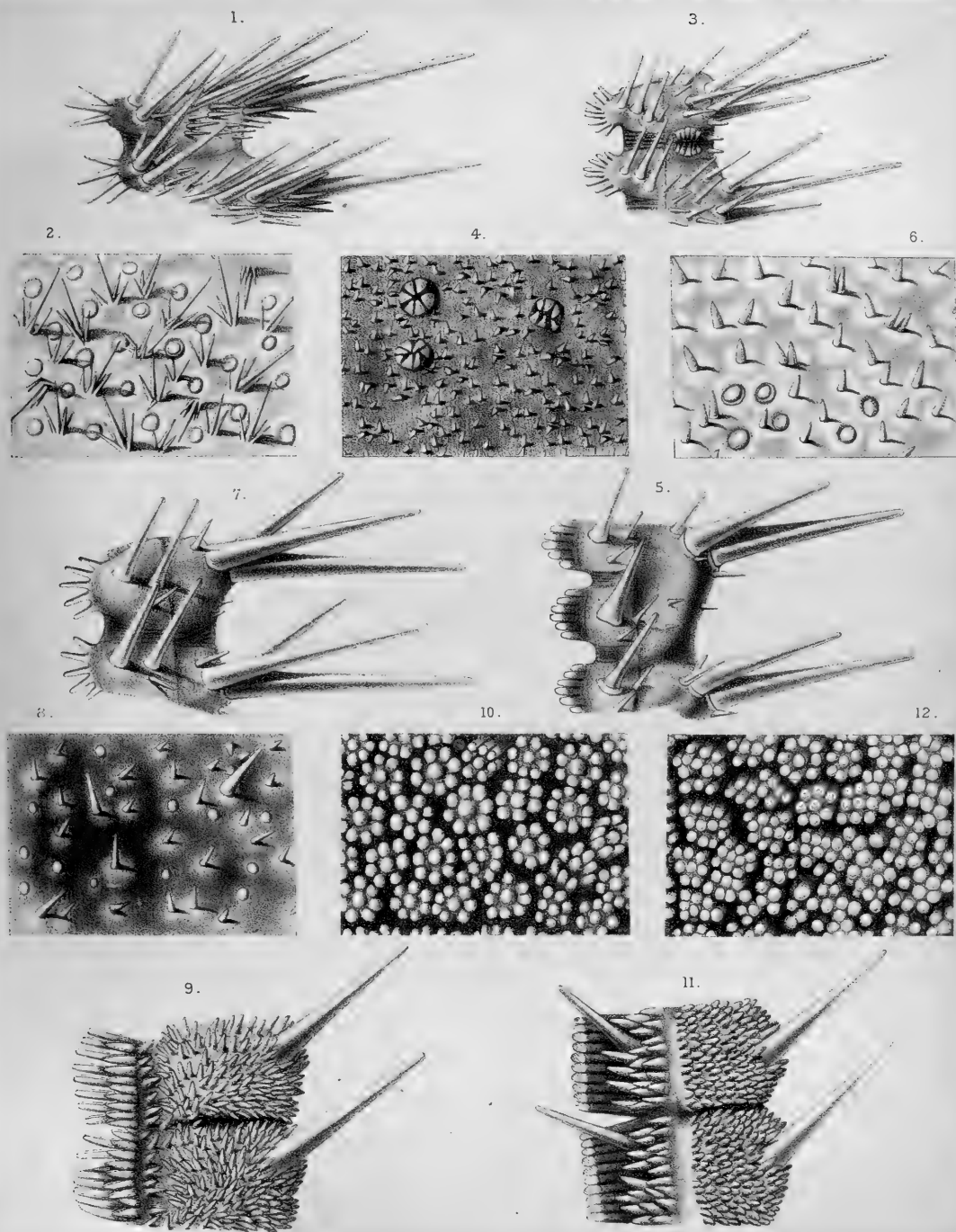


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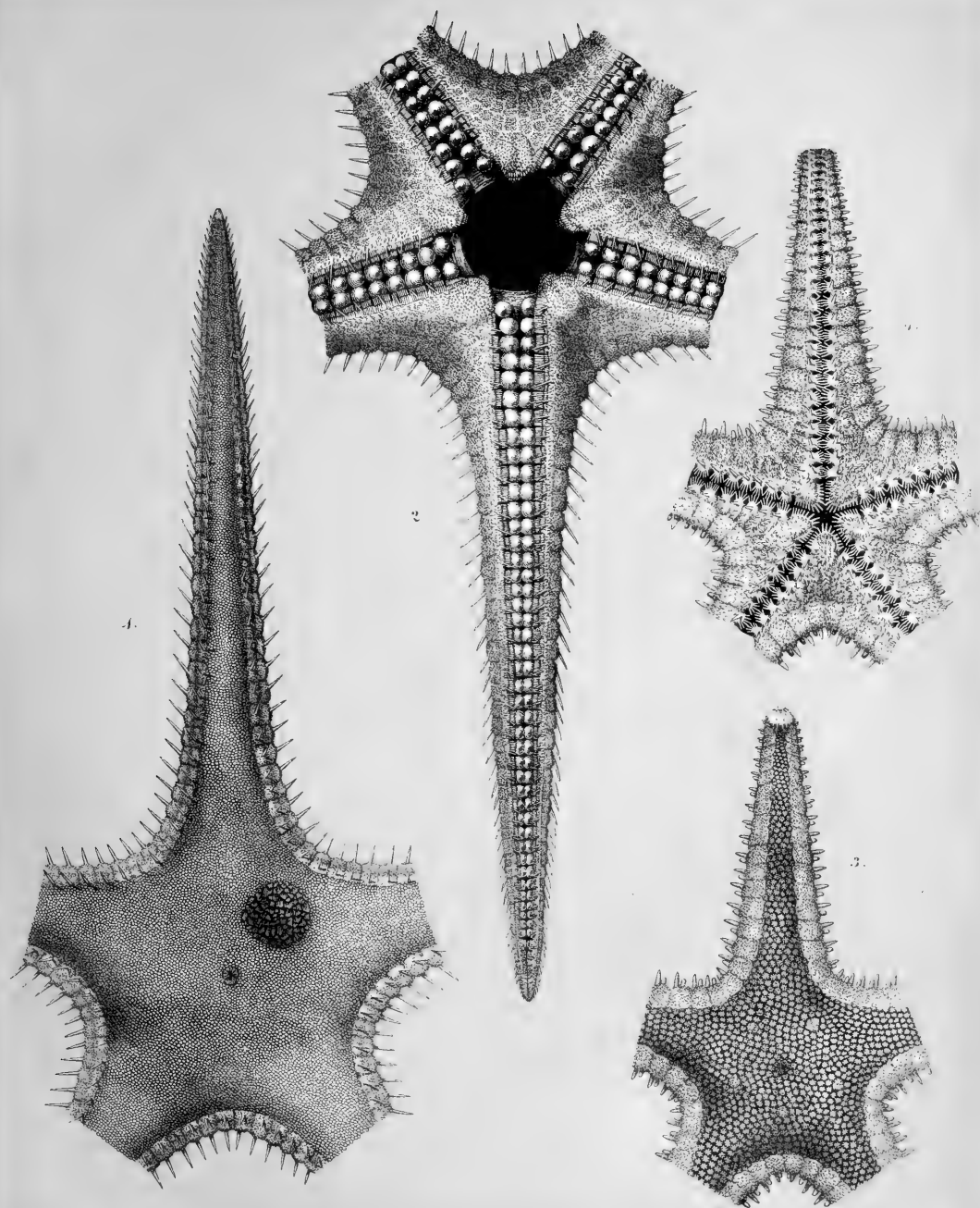


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W.H. Crowther del. H. Hollick lith.

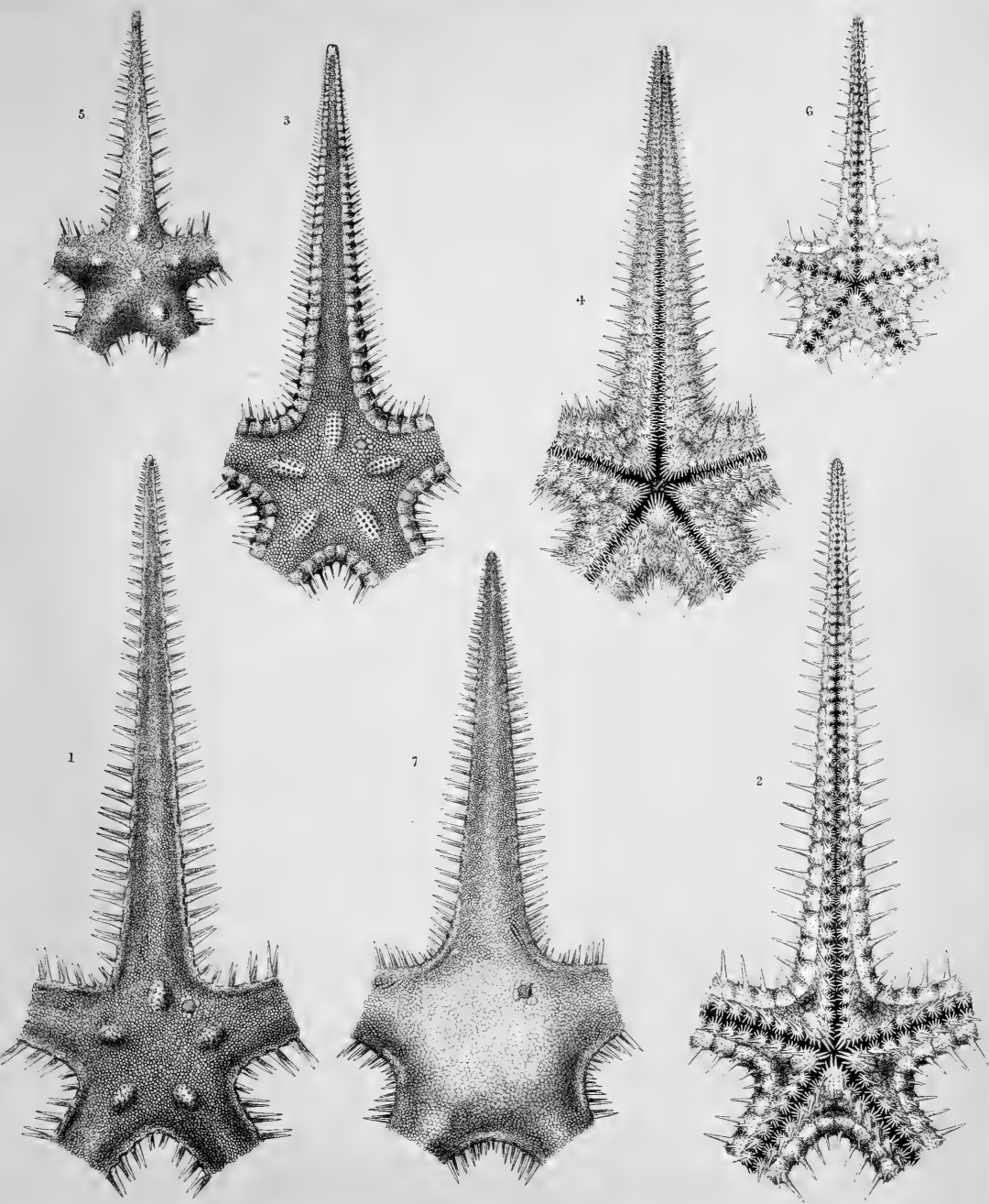
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Miner Bros. imp.

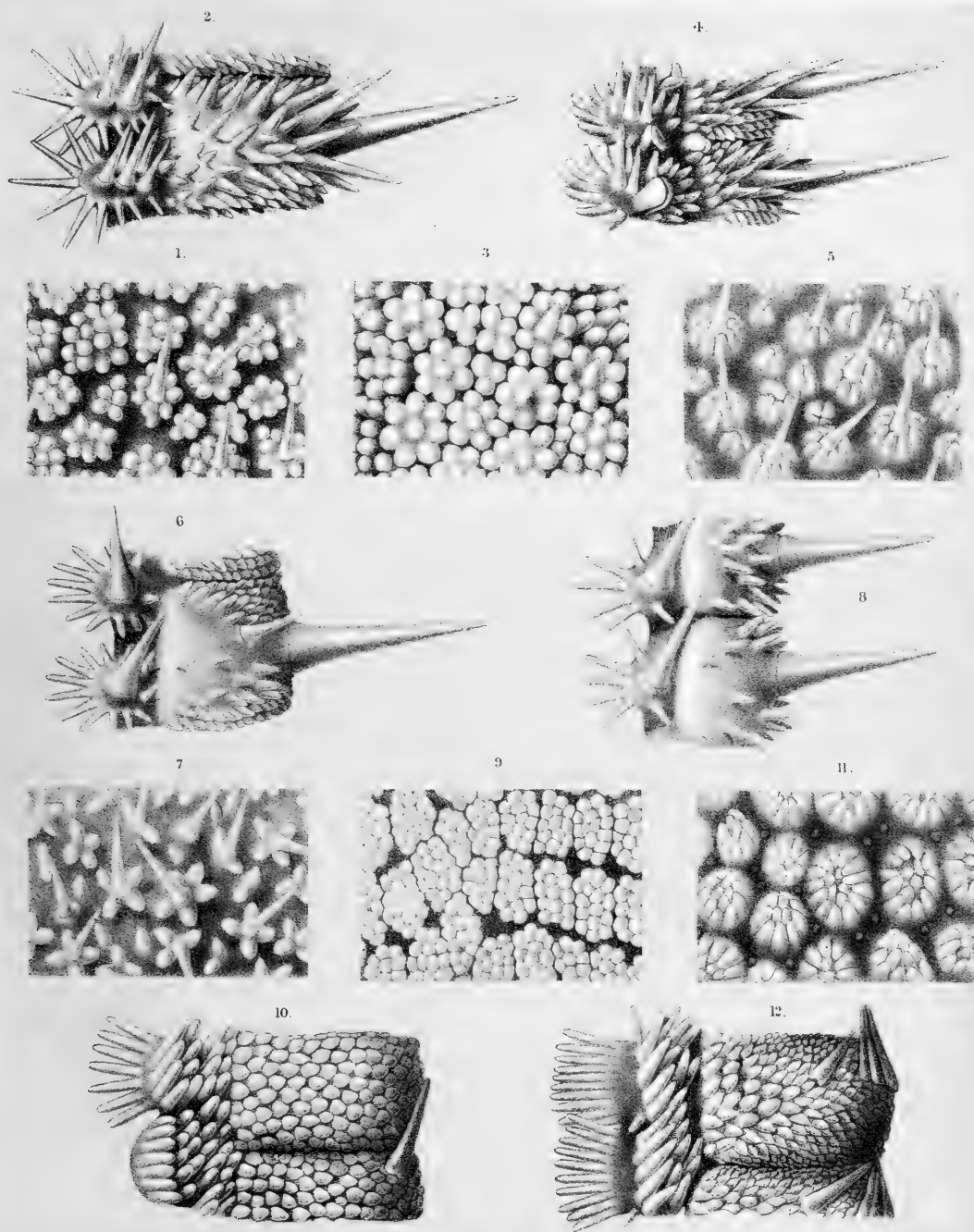
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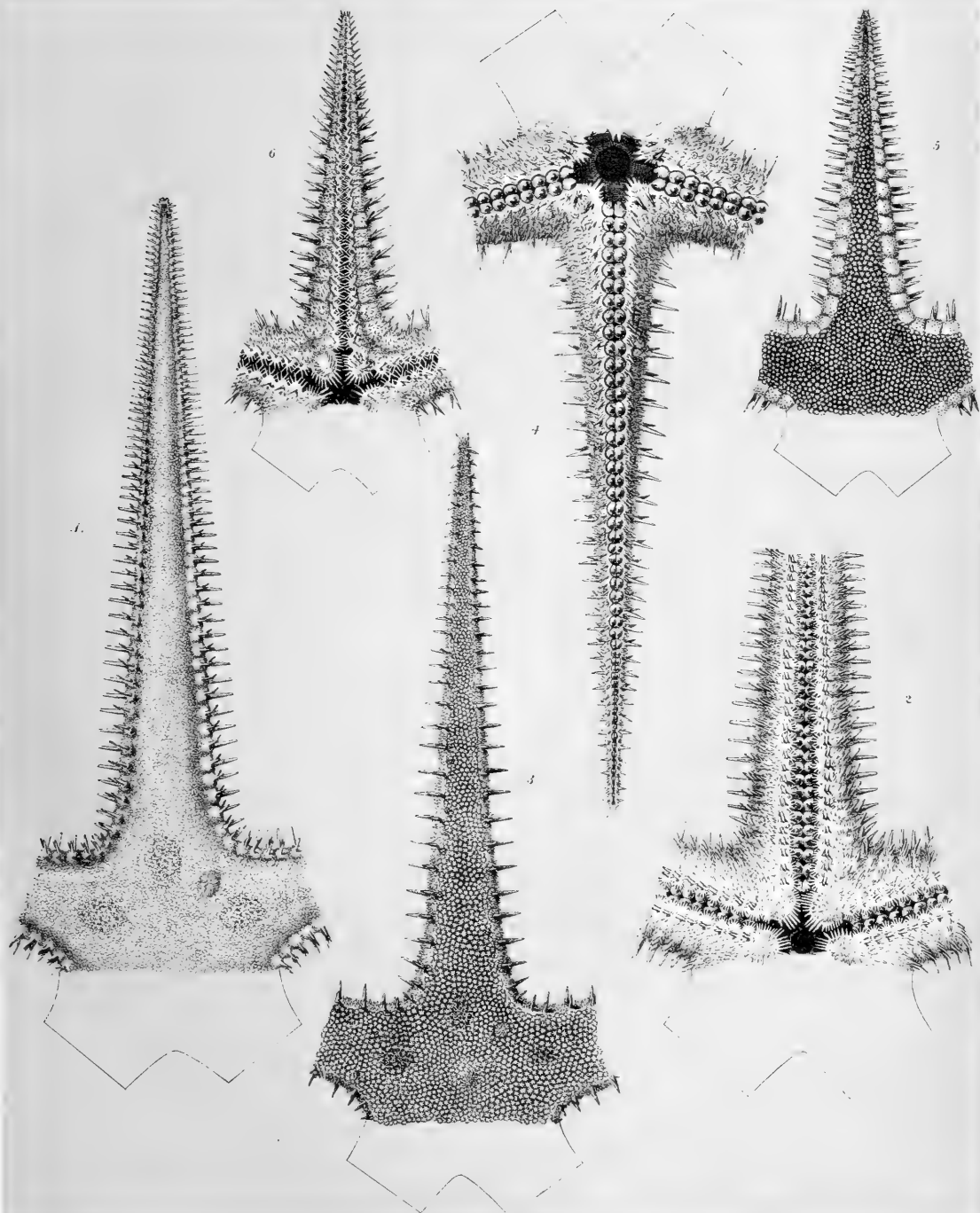
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W.H. Greenough del. W. H. H. 416

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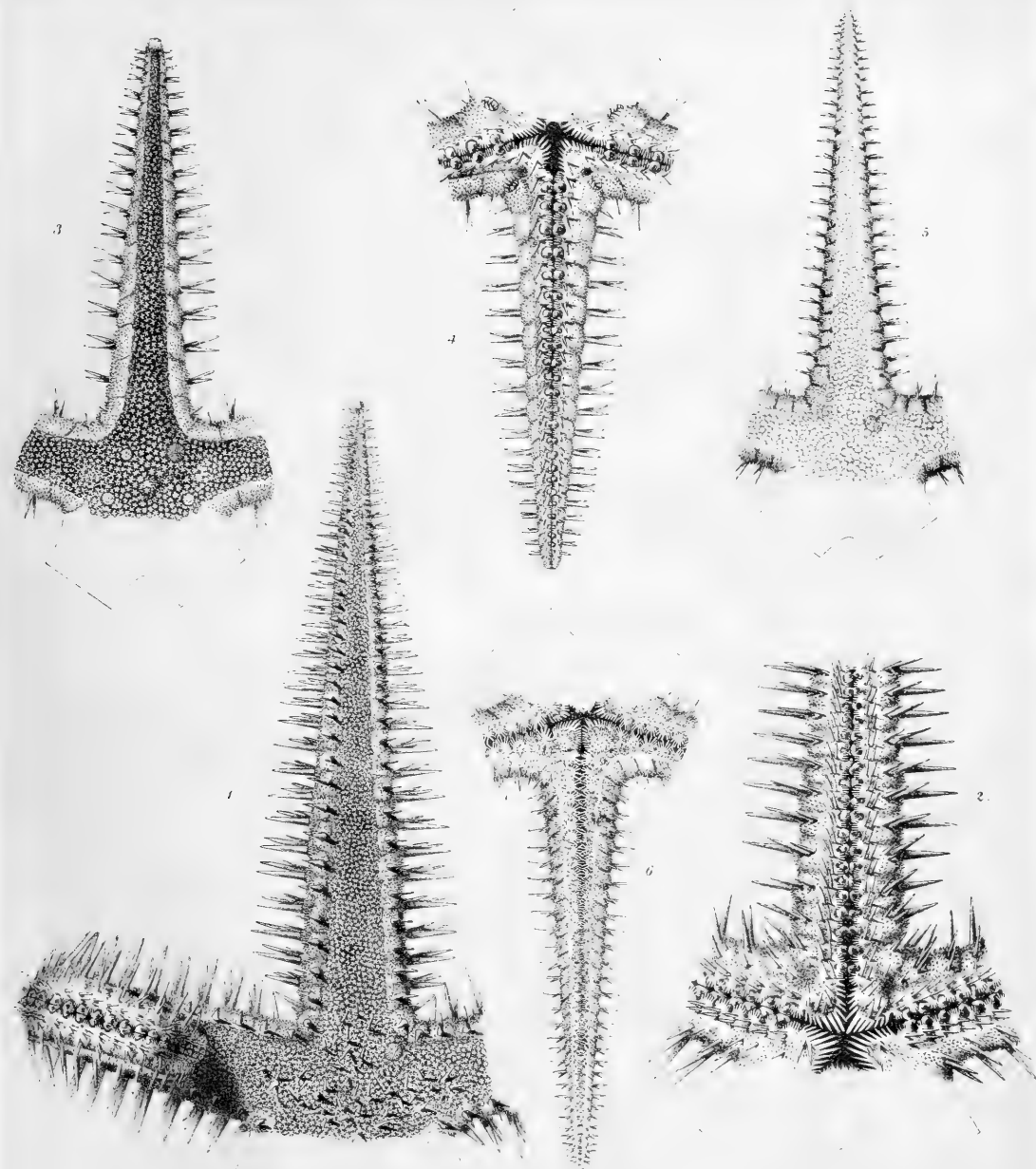
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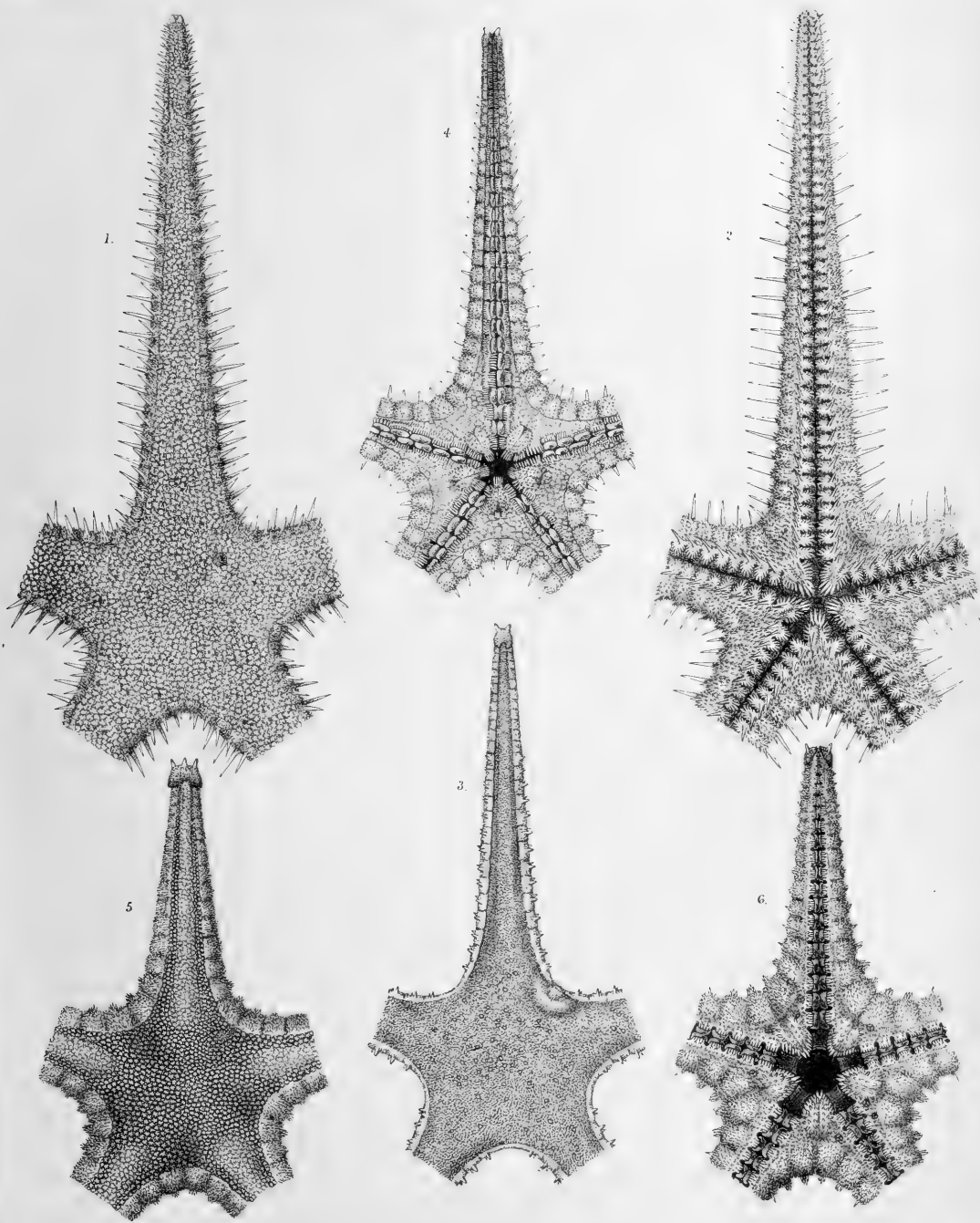


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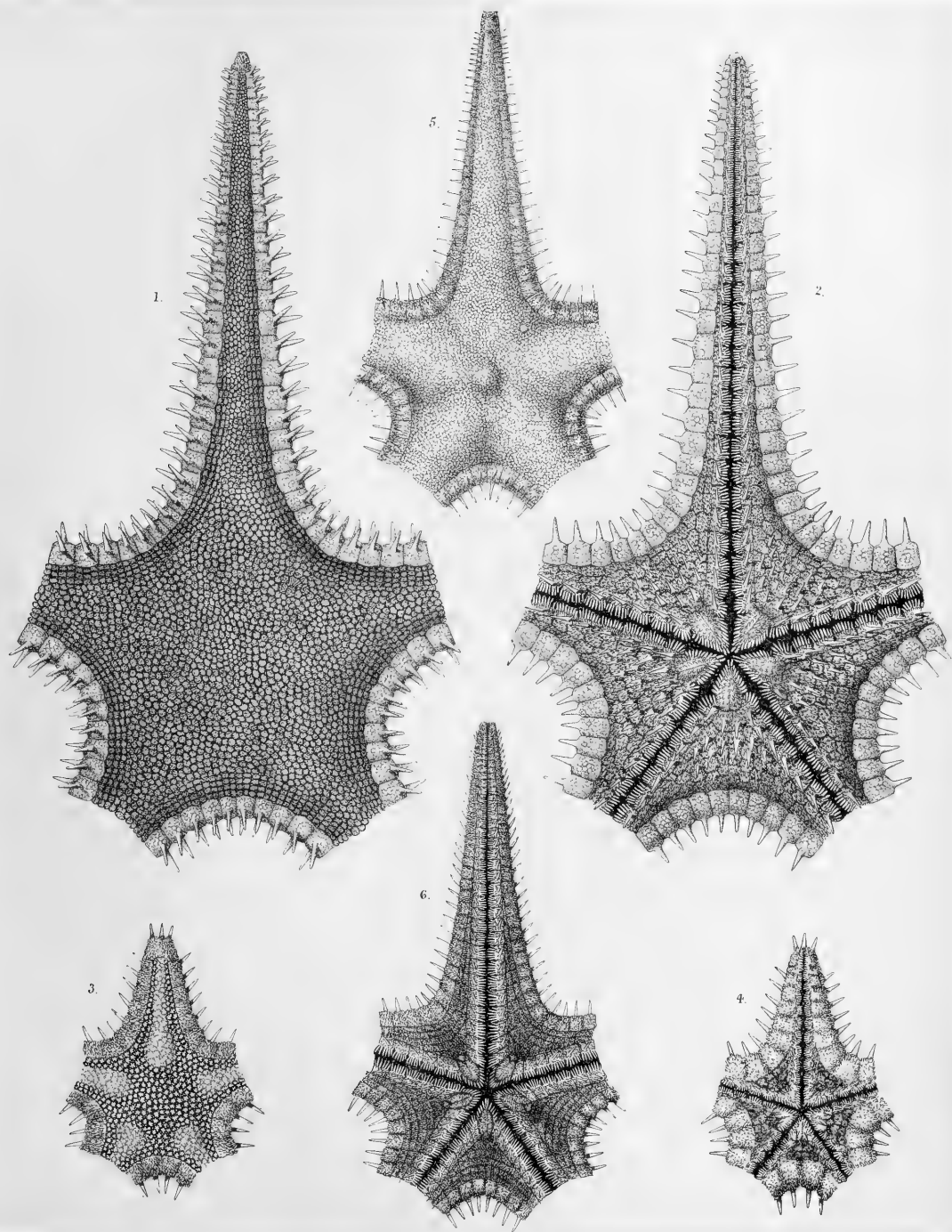


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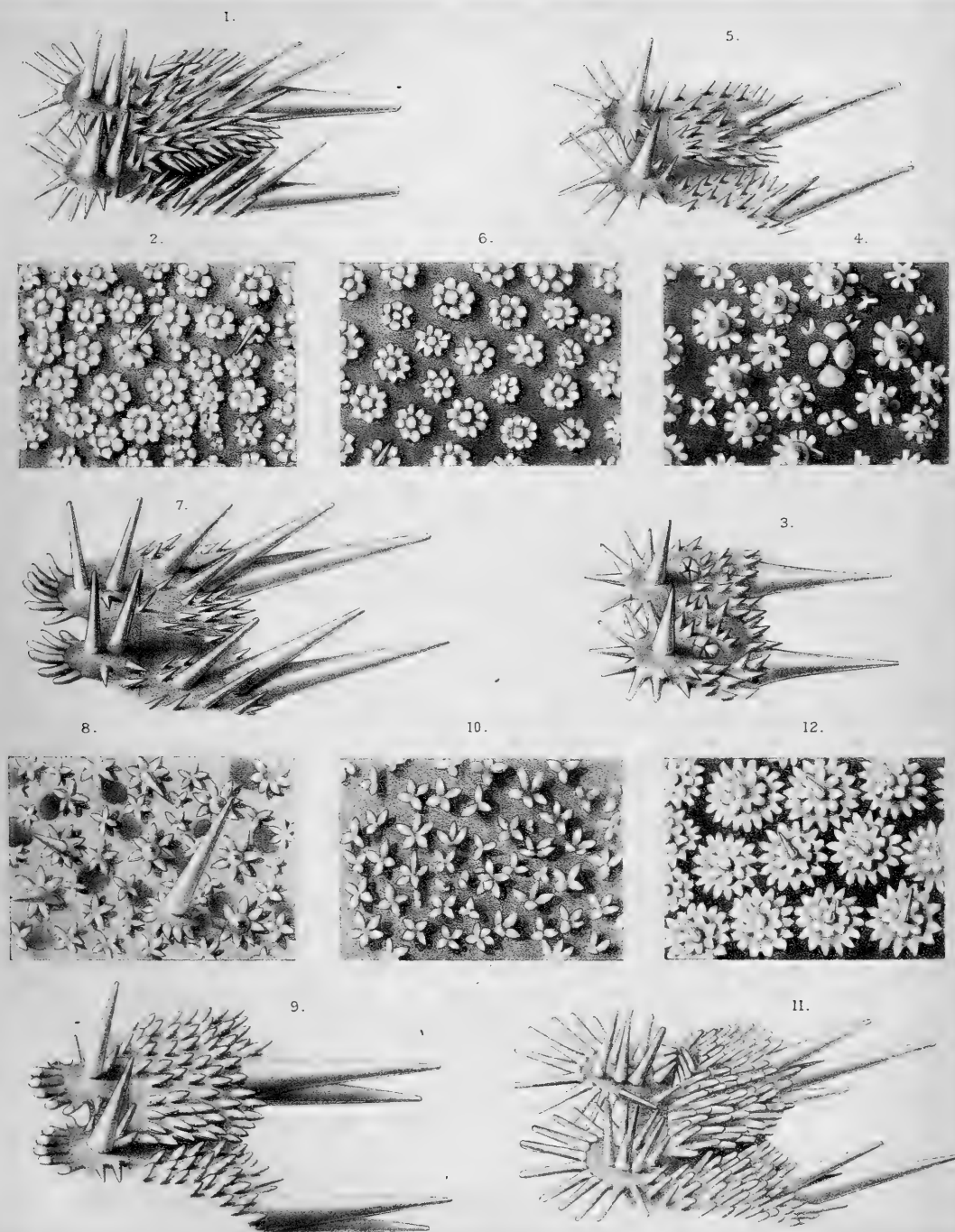
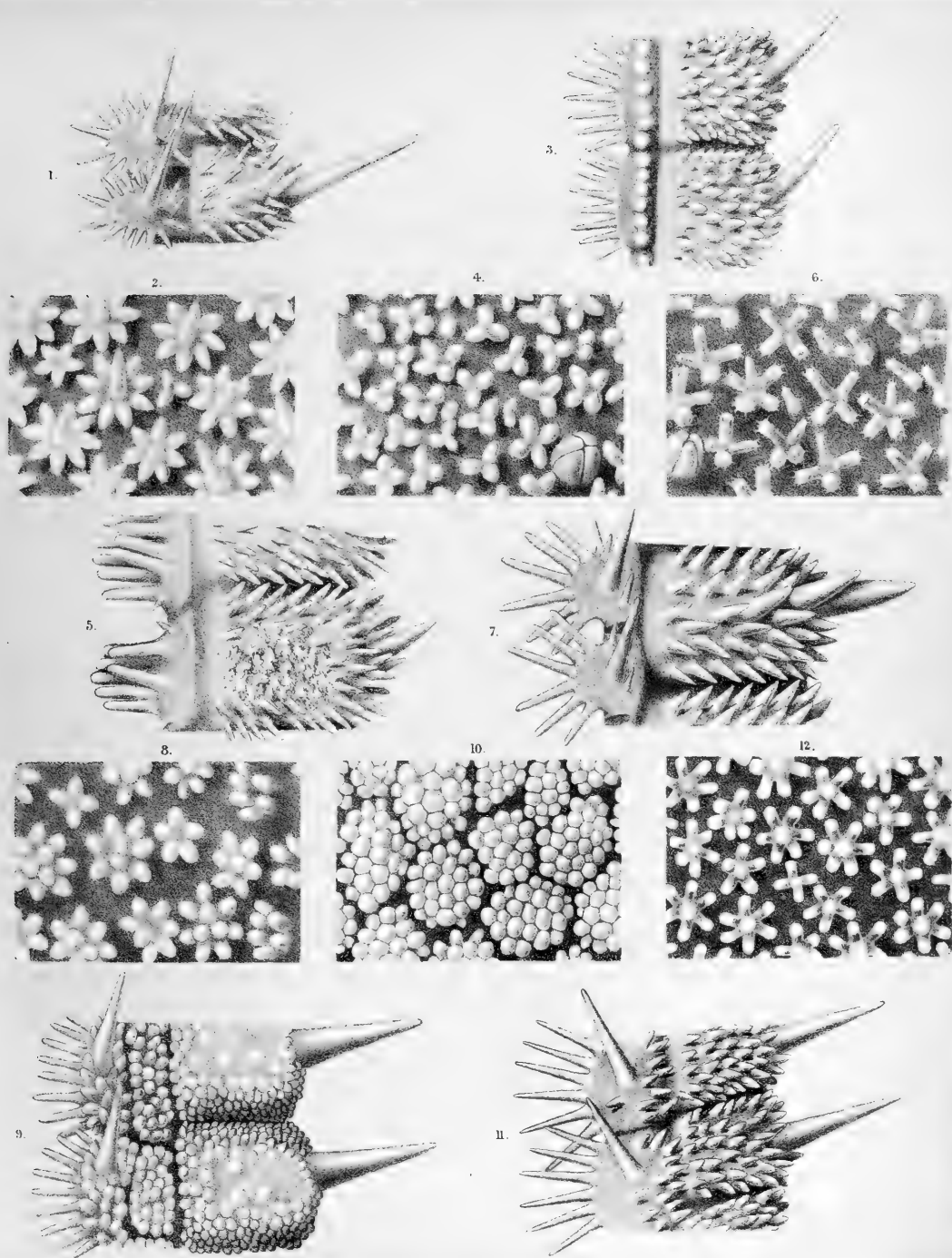


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Mintern Bros., unsp.

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5-6. *DYTASTER INERMIS*, n. sp.

7-8. *PONTASTER SUBTUBERCULATUS*, n. sp.

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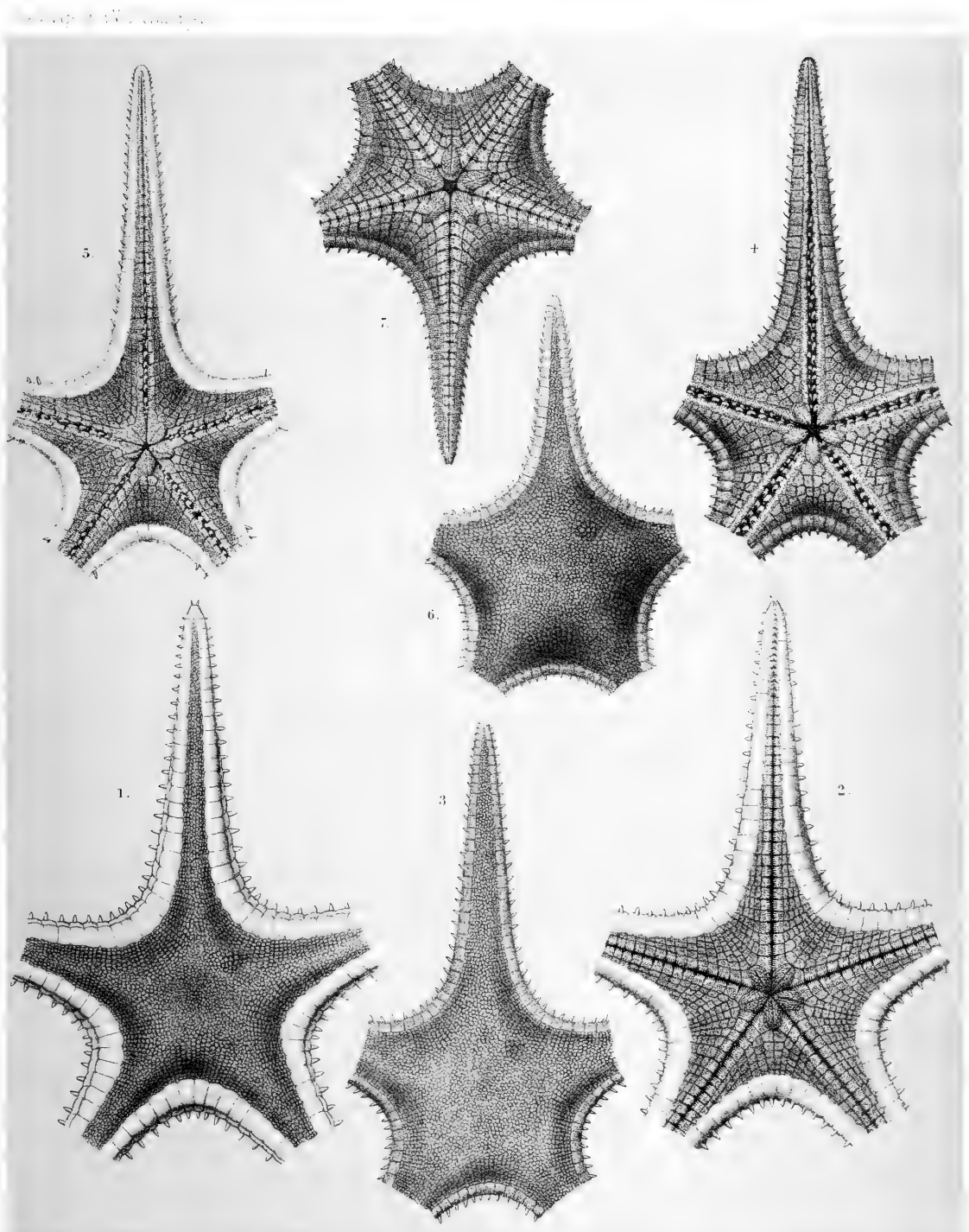
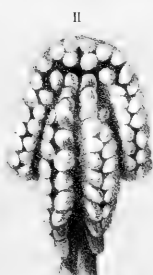
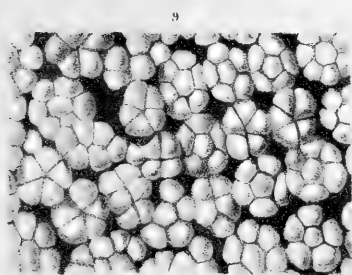
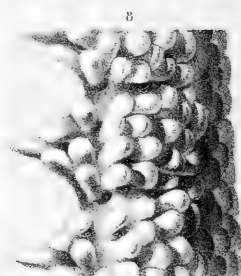
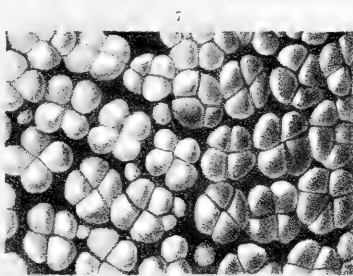
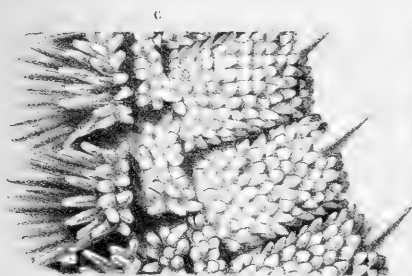
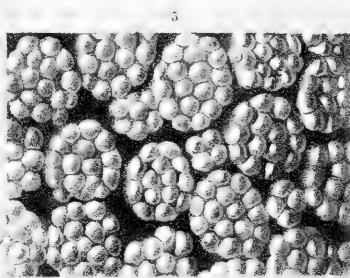
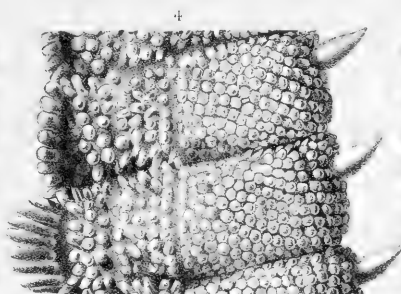
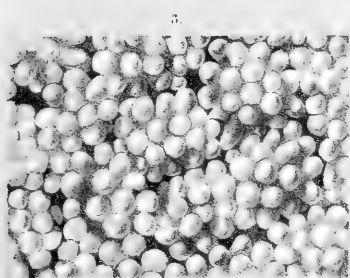
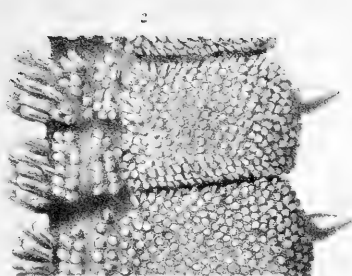
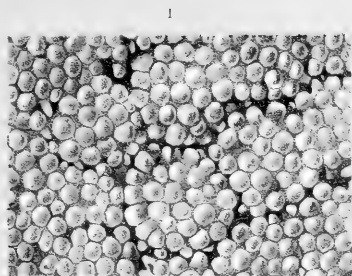


PLATE XV.

PLATE XV.

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Figs. 1, 2.	PLUTONASTER MARGINATUS, n. sp.	88
Fig. 1.	A portion of the abactinal surface ; magnified 30 diameters.	
Fig. 2.	Adambulacral and infero-marginal plates ; magnified 9 diameters.	
	[For macroscopic figures of this species see Pl. XIV. figs. 1, 2.]	
Figs. 3, 4.	PLUTONASTER RIGIDUS, n. sp.	91
Fig. 3.	A portion of the abactinal surface ; magnified 18 diameters.	
Fig. 4.	Adambulacral and infero-marginal plates ; magnified 8 diameters.	
	[For macroscopic figures of this species see Pl. XIV. figs. 3, 4.]	
Figs. 5, 6.	PLUTONASTER NOTATUS, n. sp.	97
Fig. 5.	A portion of the abactinal surface ; magnified 25 diameters.	
Fig. 6.	Adambulacral and infero-marginal plates ; magnified 16 diameters.	
	[For macroscopic figures of this species see Pl. XIV. figs. 6, 7.]	
Figs. 7-11.	PHOXASTER PUMILUS, n. sp.	236
Fig. 7.	A portion of the abactinal surface of a young example ; magnified 30 diameters.	
Fig. 8.	Adambulacral and infero-marginal plates of a young example ; magnified 25 diameters.	
Fig. 9.	A portion of the abactinal surface of an adult example ; magnified 25 diameters.	
Fig. 10.	Adambulacral and infero-marginal plates of an adult example ; magnified 20 diameters.	
Fig. 11.	Mouth-plates and armature ; magnified 12 diameters.	
	[For macroscopic figures of this species see Pl. XL. figs. 3-6.]	



1-2. PLUTONASTER MARGINATUS, n. sp.
5-6. PLUTONASTER NOTATUS, n. sp.

3-4. PLUTONASTER RIGIDUS, n. sp.
7-11. PHOXASTER PUMILUS, n. sp.

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Fig. 1. Abactinal aspect ; magnified $1\frac{1}{2}$ diameters.

Fig. 2. Actinal aspect ; magnified $1\frac{1}{2}$ diameters.

Fig. 3. Profile view ; magnified 2 diameters.

Fig. 4. A portion of the abactinal surface ; magnified 20 diameters.

Fig. 5. Adambulacral and infero-marginal plates ; magnified 10 diameters.

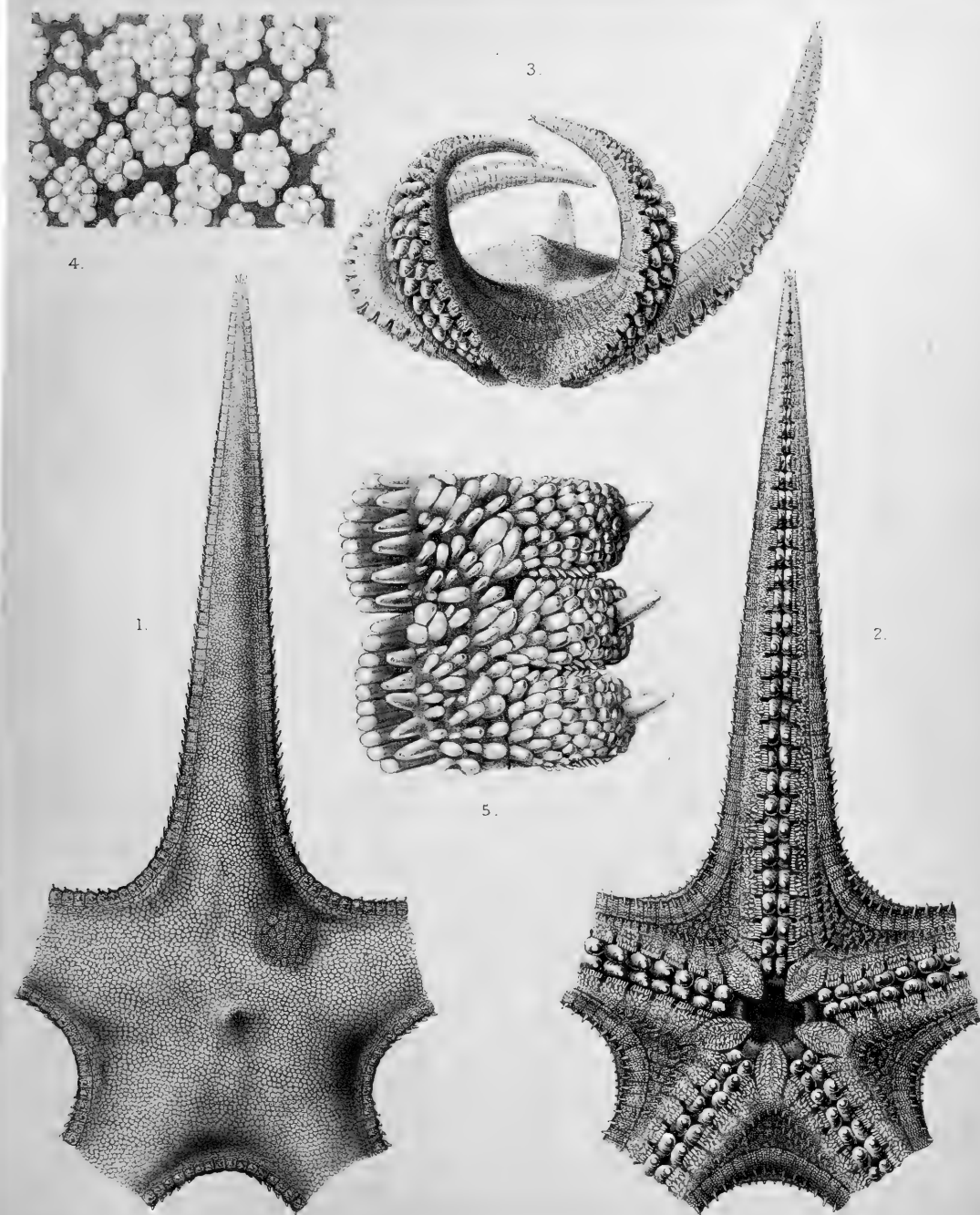
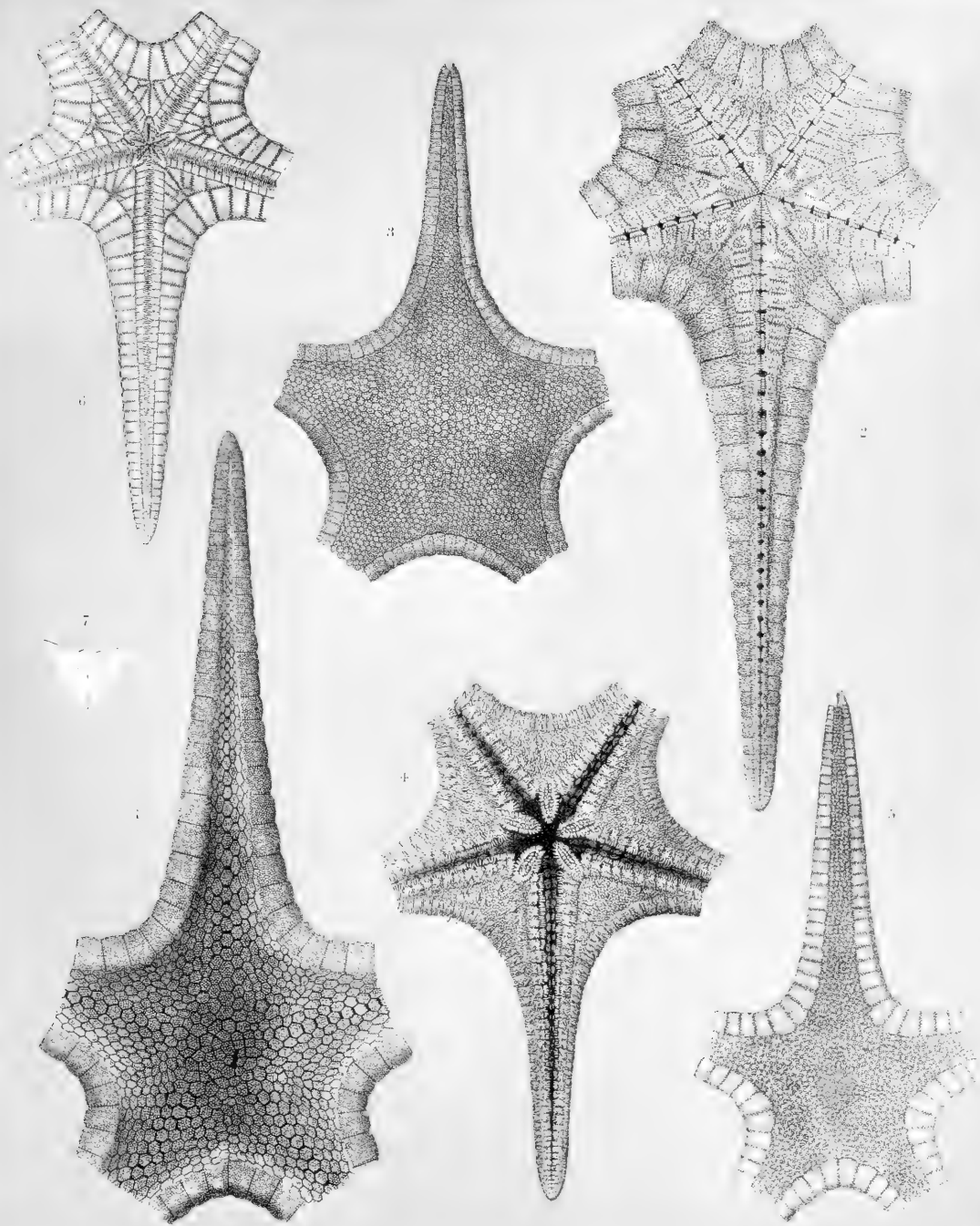


PLATE XVII.

PLATE XVII.

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Figs. 1, 2.	APHRODITASTER GRACILIS, n. sp.	117
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Fig. 2.	Actinal aspect; magnified 2 diameters.	
[For magnified details of this species see Pl. XVIII. figs. 7, 8.]		
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Fig. 3.	Abactinal aspect; magnified $1\frac{1}{2}$ diameters.	
Fig. 4.	Actinal aspect; magnified $1\frac{1}{2}$ diameters.	
[For magnified details of this species see Pl. XVIII. figs. 9-10.]		
Figs. 5-7.	CRASPIDASTER HESPERUS, Müller and Troschel, sp.	177
Fig. 5.	Abactinal aspect; magnified 2 diameters.	
Fig. 6.	Actinal aspect; magnified 2 diameters.	
Fig. 7.	Diagram of the actinal intermediate plates of an example from Hong Kong; magnified 2 diameters.	
[For magnified details of this species see Pl. XVIII. figs. 1-4.]		



1-2. *APHRODITASTER GRACILIS*, n. sp. 3-4. *PSEUDARCHASTER TESSELLATUS*, n. sp.
 5-7. *CRASPIDASTER HESPERUS*, Müller & Troschel, sp.

PLATE XVIII.

PLATE XVIII.

Figs. 1-4. <i>CRASPIDASTER HESPERUS</i> , Müller and Troschel, sp.	Page 177
Fig. 1. A portion of the abactinal surface of an example from the Philippine Islands; magnified 20 diameters.	
Fig. 2. Adambulacral and infero-marginal plates of the same; magnified 15 diameters.	
Fig. 3. A portion of the abactinal surface of an example from Hong Kong; magnified 18 diameters.	
Fig. 4. Adambulacral and infero-marginal plates of the same; magnified 12 diameters.	
[For macroscopic figures of this species see Pl. XVII. figs. 5-7.]	
Figs. 5, 6. <i>PENTAGONASTER ARCUATUS</i> , n. sp.	277
Fig. 5. A portion of the abactinal surface; magnified 8 diameters.	
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[For macroscopic figures of this species see Pl. LII. figs. 1, 2.]	
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Fig. 8. Adambulacral and infero-marginal plates; magnified 12 diameters.	
[For macroscopic figures of this species see Pl. XVII. figs. 1, 2.]	
Figs. 9, 10. <i>PSEUDARCHASTER TESSELLATUS</i> , n. sp.	112
Fig. 9. A portion of the abactinal surface; magnified 12 diameters.	
Fig. 10. Adambulacral and infero-marginal plates; magnified 12 diameters.	
[For macroscopic figures of this species see Pl. XVII. figs. 3, 4.]	

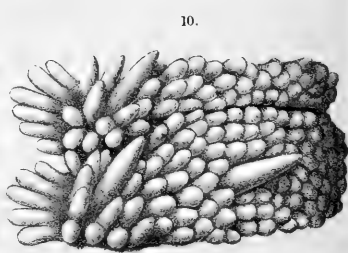
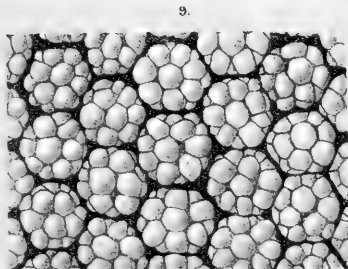
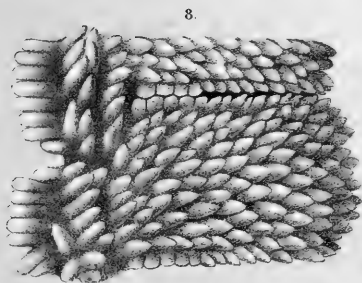
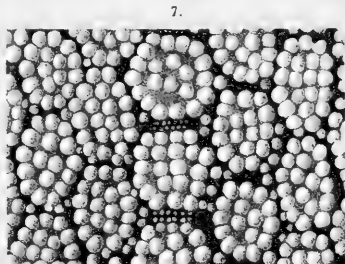
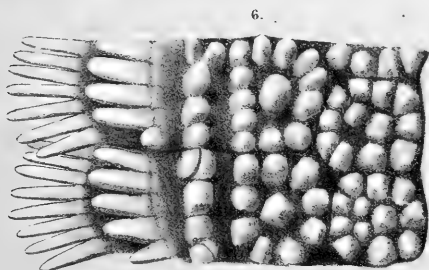
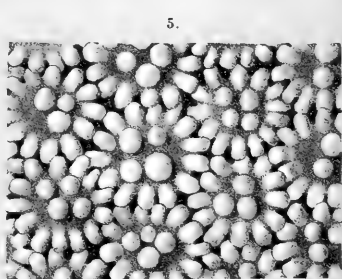
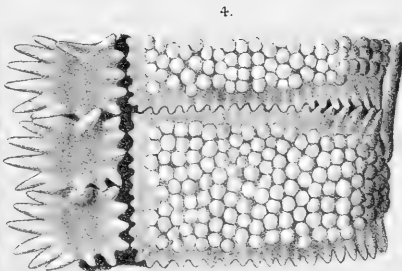
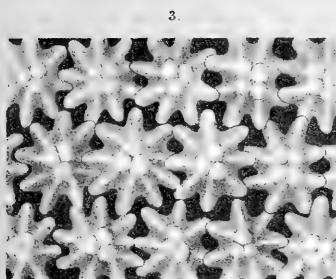
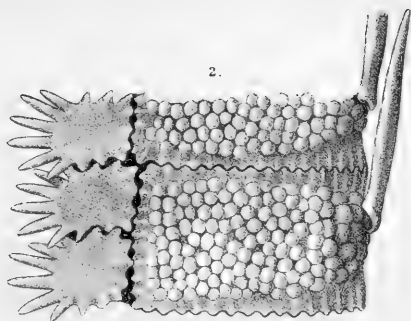
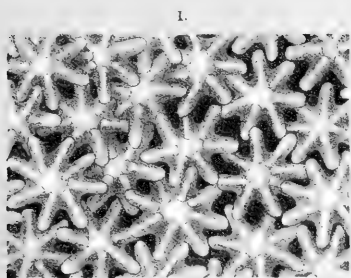
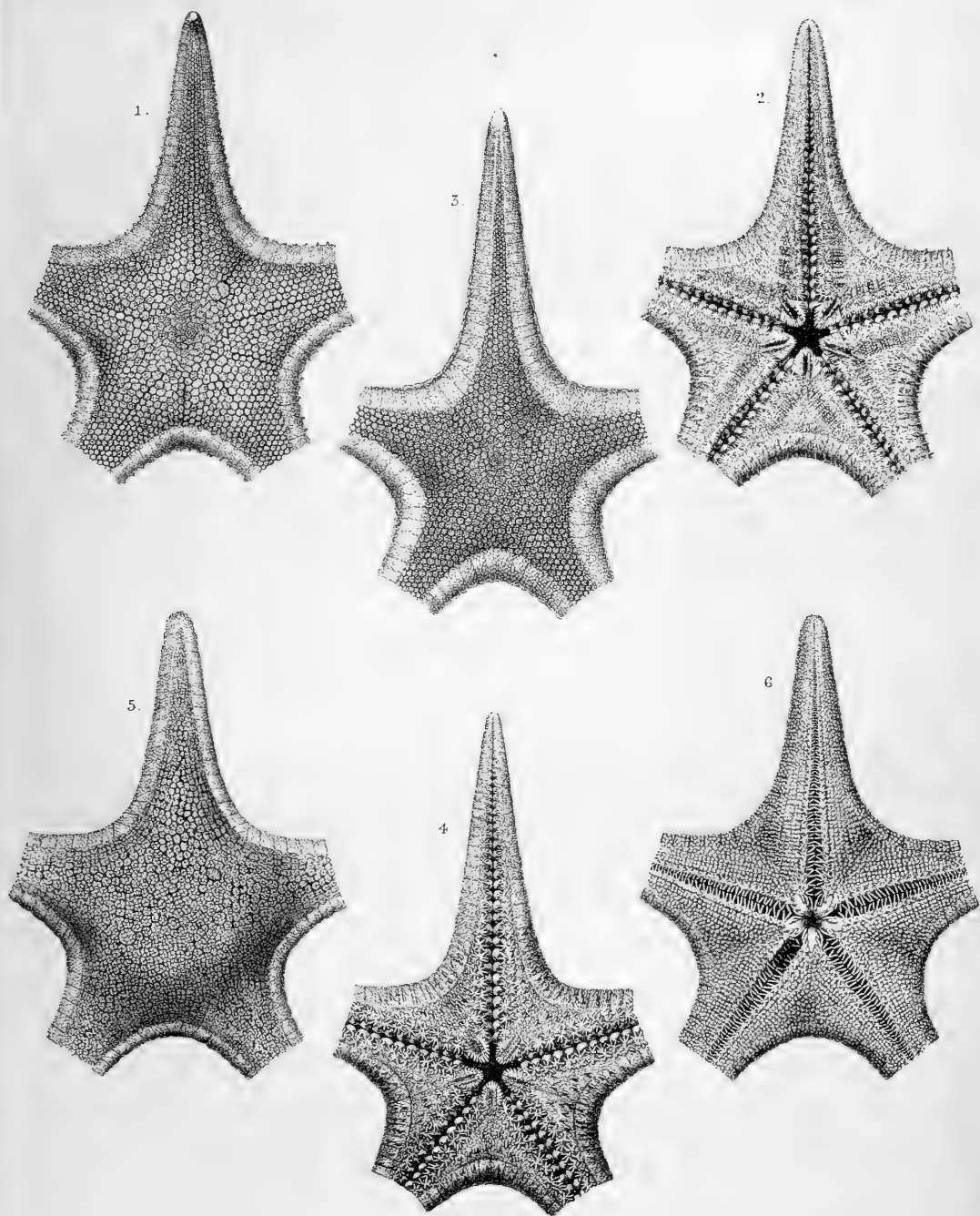


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Figs. 1, 2. <i>PSEUDARCHASTER DISCUS</i> , n. sp.	110
Fig. 1. Abactinal aspect ; magnified 2 diameters.	
Fig. 2. Actinal aspect ; magnified 2 diameters.	
[For magnified details of this species see Pl. XLII. figs. 3, 4.]	
Figs. 3, 4. <i>PSEUDARCHASTER INTERMEDIUS</i> , n. sp.	115
Fig. 3. Abactinal aspect ; magnified 2 diameters.	
Fig. 4. Actinal aspect ; magnified 2 diameters.	
[For magnified details of this species see Pl. XLII. figs. 5, 6.]	
Figs. 5, 6. <i>GNATHASTER ELONGATUS</i> , n. sp.	288
Fig. 5. Abactinal aspect of a young example ; magnified 3 diameters.	
Fig. 6. Actinal aspect of a young example ; magnified 3 diameters.	
[For figures of adult examples of this species see Pl. XLVIII. figs. 1-4 ; for magnified details see Pl. XLIX. figs. 5-10.]	



1-2. PSEUDARCHASTER DISCUS, n.sp.

3-4. PSEUDARCHASTER INTERMEDIUS, n.sp.

5-6. GNATHASTER ELONGATUS, n.sp. juv.

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Figs. 1-7. PORCELLANASTER CÆRULEUS, Wyville Thomson, . . .	134

Fig. 1. Abactinal aspect ; magnified 3 diameters.

Fig. 2. Actinal aspect ; magnified 3 diameters.

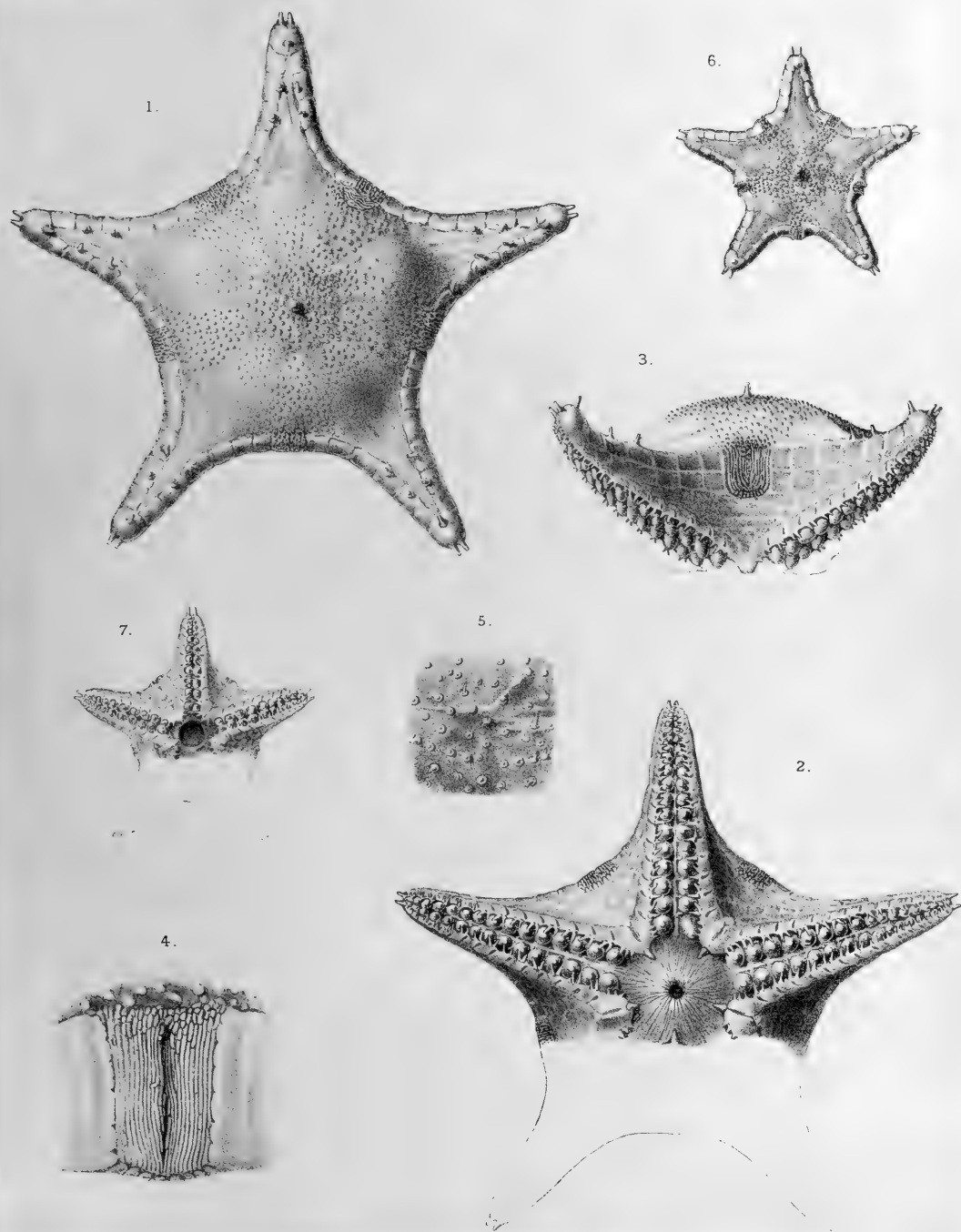
Fig. 3. Profile view ; magnified 3 diameters.

Fig. 4. A cribriform organ ; magnified 10 diameters.

Fig. 5. A portion of the abactinal surface ; magnified 20 diameters.

Fig. 6. Abactinal aspect of a young example ; magnified 3 diameters.

Fig. 7. Actinal aspect of a young example ; magnified 3 diameters.



PORCELLANASTER CÆRULEUS, Wyville Thomson

PLATE XX^A.

PLATE XX^A.

Figs. 1-10. PORCELLANASTER CÆRULEUS, Wyville Thomson, . . . Page
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- Fig. 1. Abactinal aspect; magnified 3 diameters.
- Fig. 2. Actinal aspect; magnified 3 diameters.
- Fig. 3. Profile view; magnified 3 diameters.
- Fig. 4. A portion of the actinostome, showing the buccal membrane, and an adjacent radial area; magnified 5 diameters.
- Fig. 5. An actinal interrarial area; magnified 6 diameters.
- Fig. 6. A terminal plate, abactinal aspect; magnified about 7 diameters.
- Fig. 7. Actinal aspect of the same; magnified about 7 diameters.
- Fig. 8. A pair of ambulacral plates, seen in profile; magnified 5 diameters.
- Fig. 9. Ambulacral plates seen from above; magnified 5 diameters.
- Fig. 10. Lateral view of the same, showing the adambulacral plates; magnified 5 diameters. [The character of the latter is somewhat exaggerated.]

[These figures appear to have been drawn from a dried or shrunken example.

The plate was prepared under the direction of Sir Wyville Thomson, and I was unfortunately not aware of its existence until the greater part of the text and nearly all the plates had been printed off.]

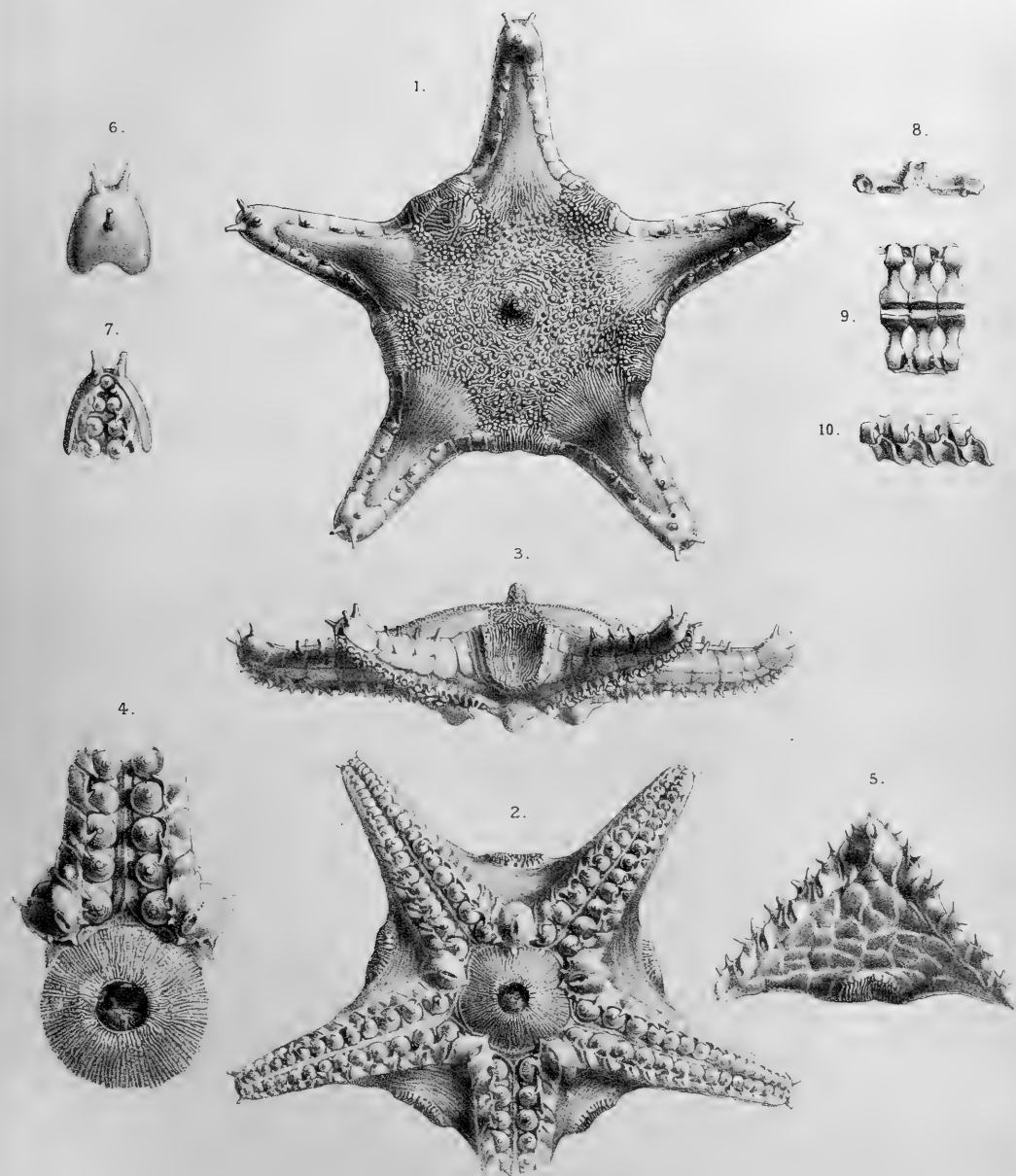


PLATE XXI.

PLATE XXI.

Figs. 1-4. <i>HYPHALASTER DIADEMATUS</i> , n. sp.	Page 159
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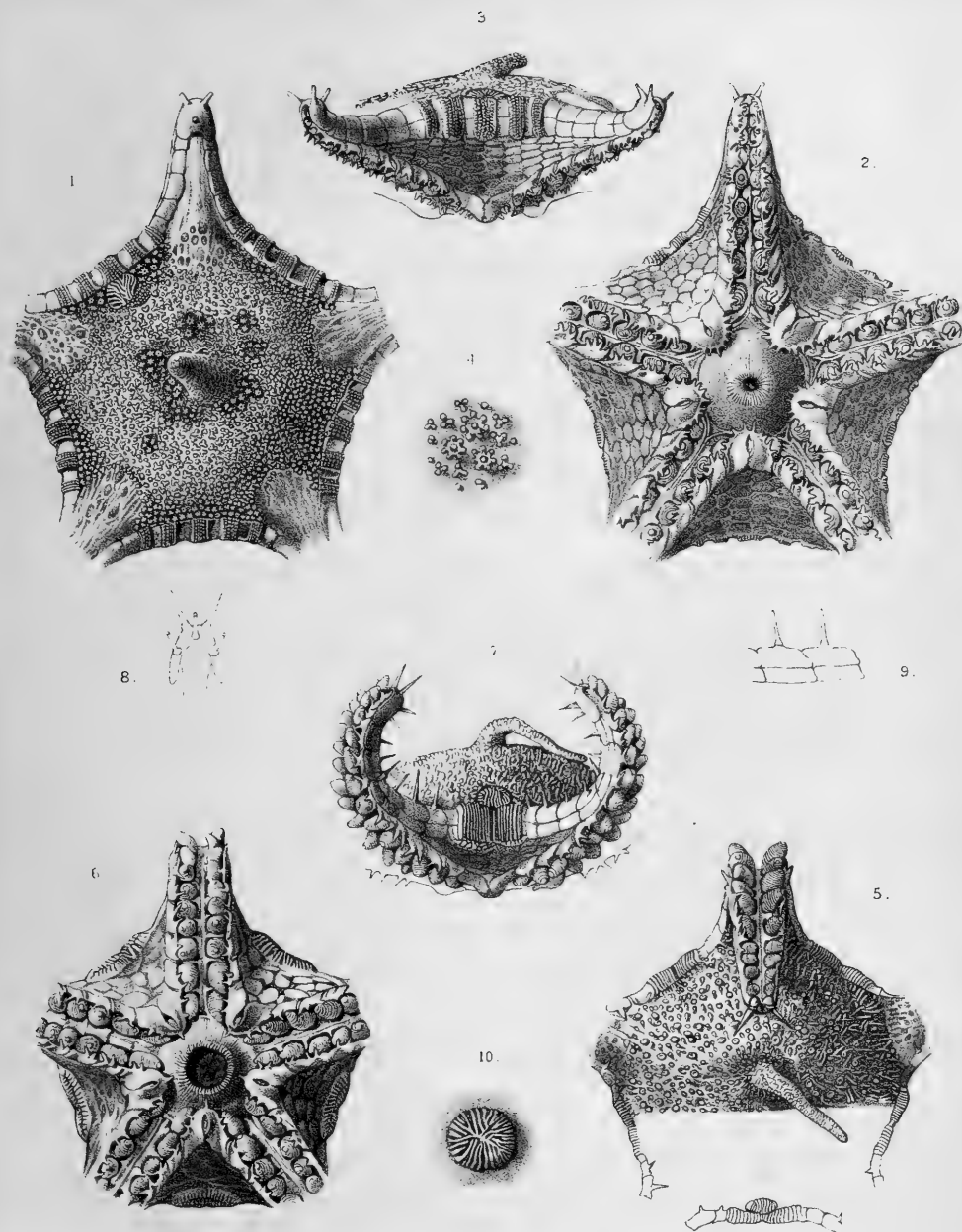
- Fig. 1. Abactinal aspect; magnified 4 diameters.
- Fig. 2. Actinal aspect; magnified 4 diameters.
- Fig. 3. Profile view; magnified 4 diameters.
- Fig. 4. A portion of the abactinal surface; magnified about 14 diameters.

[For magnified details of this species see Pl. XXVIII. figs. 17-20.]

Figs. 5-10. <i>PORCELLANASTER CAULIFER</i> , n. sp.	138
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- Fig. 5. Abactinal aspect; magnified 4 diameters.
- Fig. 6. Actinal aspect; magnified 4 diameters.
- Fig. 7. Profile view; magnified 4 diameters.
- Fig. 8. Diagram of the terminal plate; magnified.
- Fig. 9. Diagram of the marginal plates; magnified.
- Fig. 10. The madreporiform body; magnified 8 diameters.

[For magnified details of this species see Pl. XXVII. figs. 9-12.]



1-4. *HYPHALASTER DIADEMATUS*, n. sp.

5-10. *PORCELLANASTER CAULIFER*, n. sp.

F. Hub. Int. F. S. n.

PLATE XXII.

PLATE XXII.

Figs. 1-3. PORCELLANASTER GRACILIS, n. sp.	Page
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Fig. 1. Abactinal aspect; magnified 5 diameters.

Fig. 2. Actinal aspect; magnified 5 diameters.

Fig. 3. Profile view; magnified 5 diameters.

[For magnified details of this species see Pl. XXVII. figs. 5-8.]

Figs. 4-7. PORCELLANASTER CRASSUS, n. sp.	141
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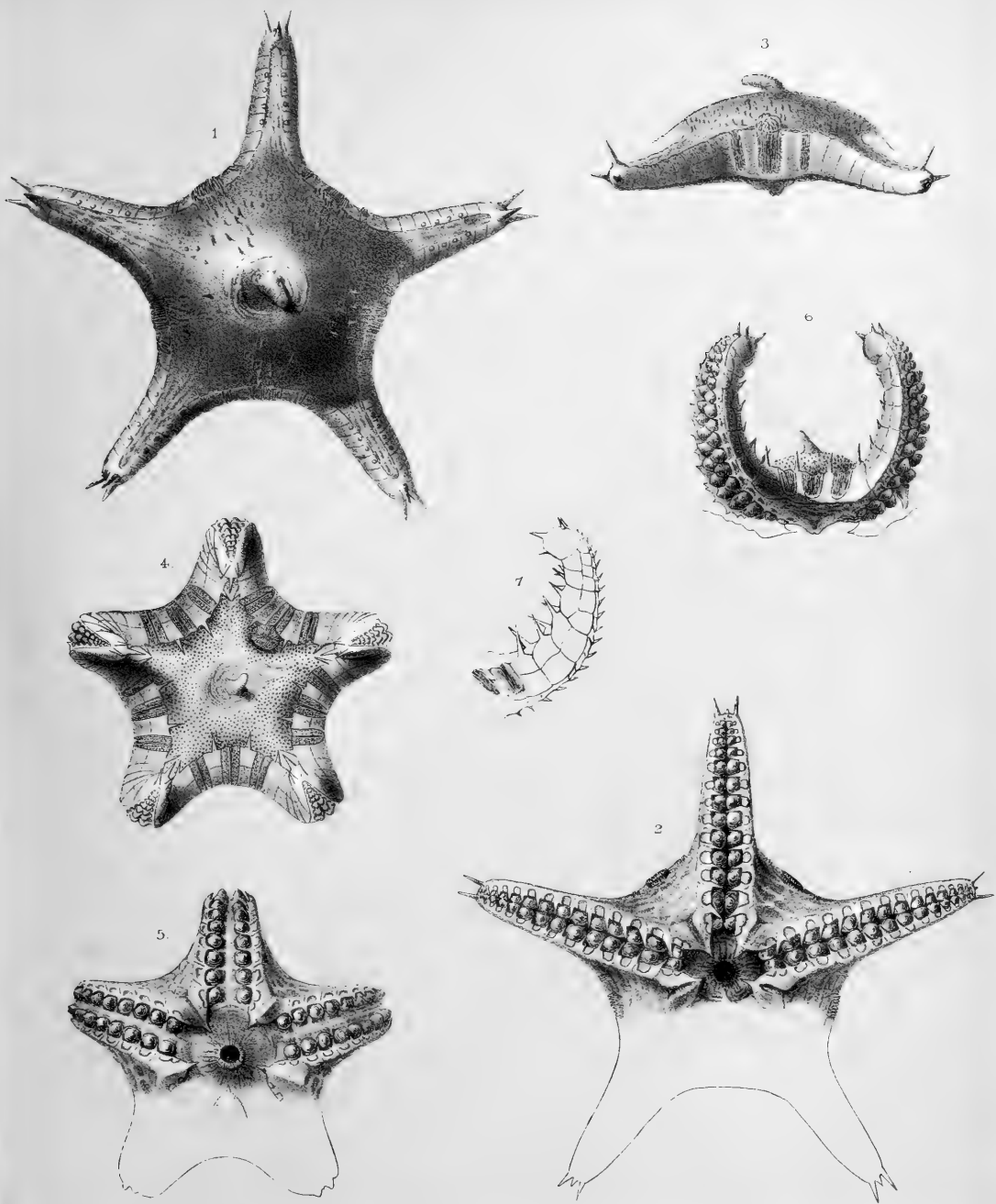
Fig. 4. Abactinal aspect; magnified 2 diameters.

Fig. 5. Actinal aspect; magnified 2 diameters.

Fig. 6. Profile view; magnified 2 diameters.

Fig. 7. Direct lateral view of a ray, in outline; magnified 2 diameters.

[For magnified details of this species see Pl. XXVII. figs. 1-4.]



F.H. Michael, del.

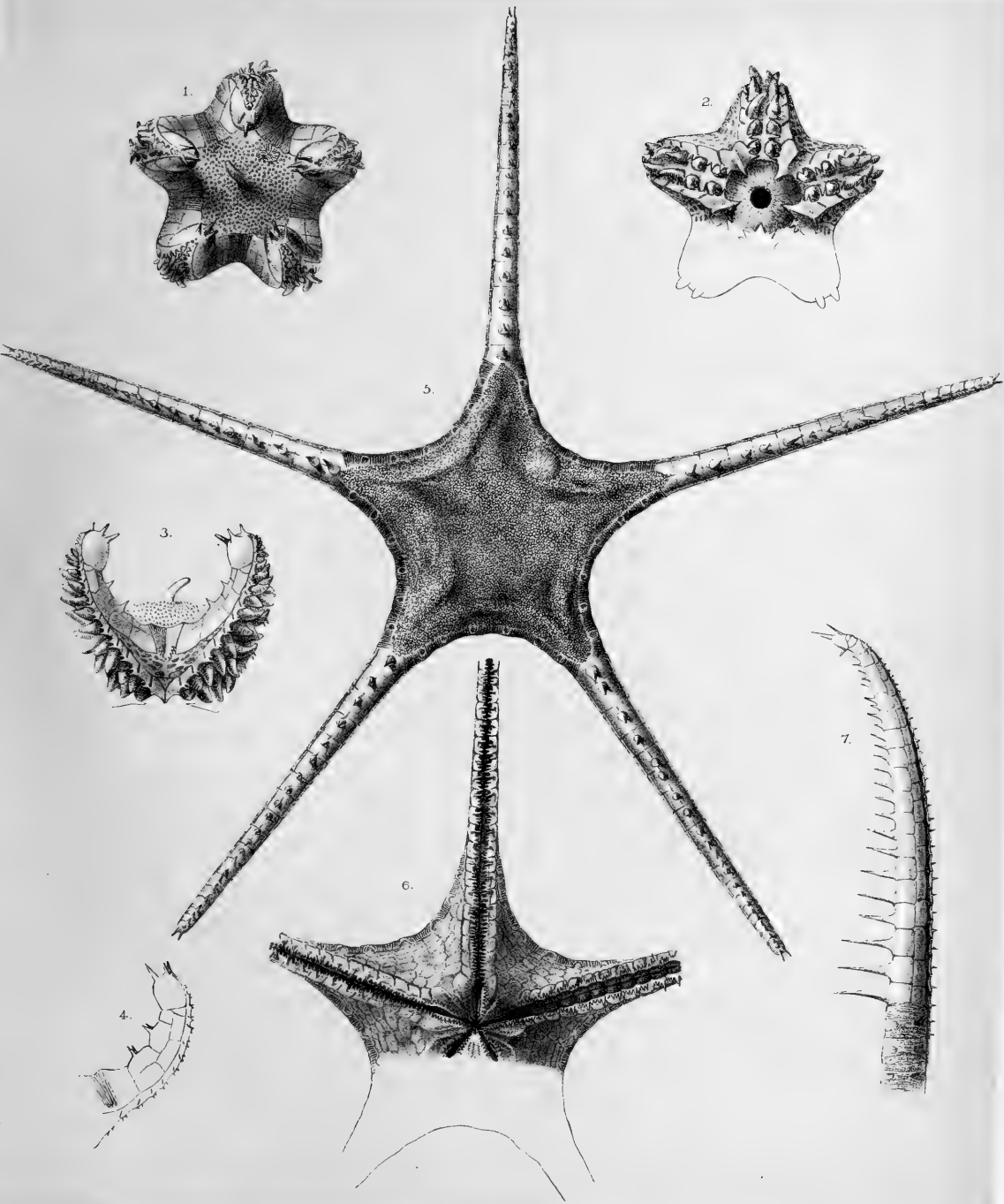
Geo. West & Sons lith et imp

1-3. PORCELLANASTER GRACILIS, n. sp. 4-7. PORCELLANASTER CRASSUS, n. sp.

PLATE XXIII.

PLATE XXIII.

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Figs. 1-4. PORCELLANASTER TUBEROSUS, n. sp.	140
Fig. 1. Abactinal aspect; magnified 3 diameters.	
Fig. 2. Actinal aspect; magnified 3 diameters.	
Fig. 3. Profile view; magnified 3 diameters.	
Fig. 4. Direct lateral view of a ray, in outline; magnified 3 diameters.	
[For magnified details of this species see Pl. XXVII. figs. 13-16.]	
Figs. 5-7. STYRACASTER HORRIDUS, n. sp.	150
Fig. 5. Abactinal aspect; magnified $1\frac{1}{2}$ diameters.	
Fig. 6. Actinal aspect; magnified $1\frac{1}{2}$ diameters.	
Fig. 7. Direct lateral view of a ray; magnified $1\frac{1}{2}$ diameters.	
[For magnified details of this species see Pl. XXVII. figs. 17-20.]	



H. Michael, del.

Geo. West & Sons lith. et. imp.

1-4. PORCELLANASTER TUBEROSUS, n. sp 5-7. STYRACASTER HORRIDUS, n. sp

PLATE XXIV.

PLATE XXIV.

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Figs. 1-4. <i>STYRACASTER ARMATUS</i> , n. sp.	153

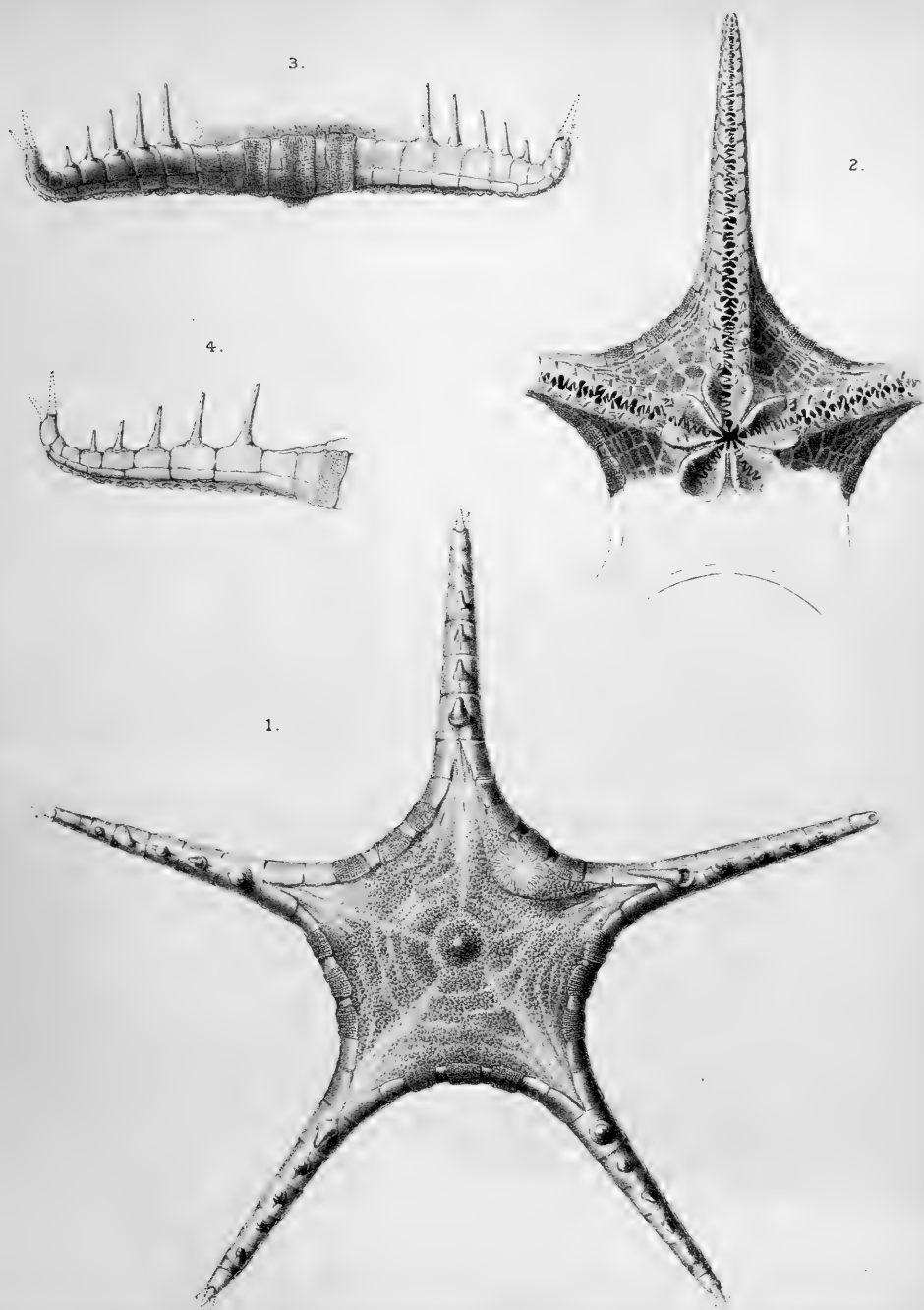
Fig. 1. Abactinal aspect; magnified 2 diameters.

Fig. 2. Actinal aspect; magnified 2 diameters.

Fig. 3. Profile view; magnified 2 diameters.

Fig. 4. Lateral view of a ray; magnified 2 diameters.

[For magnified details of this species see Pl. XXVIII. figs. 1-4.]



F. H. Michael del.

Pl. XXIV. 1880

STYRACASTER ARMATUS, n. sp.

PLATE XXV.

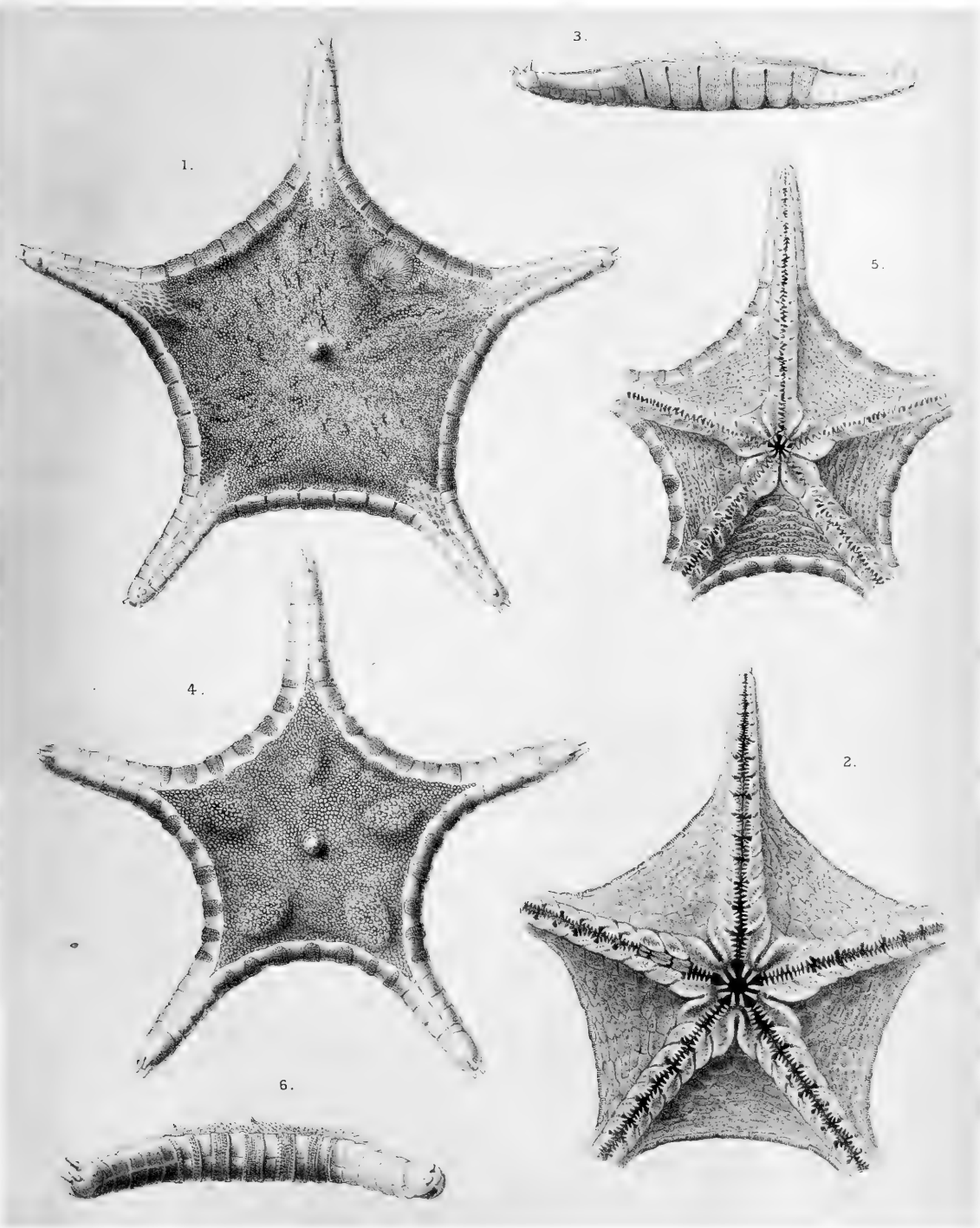
PLATE XXV.

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Figs. 1-3. <i>HYPHALASTER PLANUS</i> , n. sp.	165
Fig. 1. Abactinal aspect; magnified 2 diameters.	
Fig. 2. Actinal aspect; magnified 2 diameters.	
Fig. 3. Profile view; magnified 2 diameters.	

[For magnified details of this species see Pl. XXVIII. figs 9-12.]

Figs. 4-6. <i>HYPHALASTER INERMIS</i> , n. sp.	162
Fig. 4. Abactinal aspect; magnified 3 diameters.	
Fig. 5. Actinal aspect; magnified 3 diameters.	
Fig. 6. Profile view; magnified 3 diameters.	

[For magnified details of this species see Pl. XXVIII. figs. 5-8.]



F.H. Michael del.

F.H. Muhl. lith. Edin.

1-3. HYPHALASTER PLANUS, n. sp.

4-6. HYPHALASTER INERMIS, n. sp.

PLATE XXVI.

PLATE XXVI.

Figs. 1-6. <i>HYPHALASTER HYALINUS</i> , n. sp.	Page
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Fig. 1. Abactinal aspect; magnified 3 diameters.

Fig. 2. Actinal aspect; magnified 3 diameters.

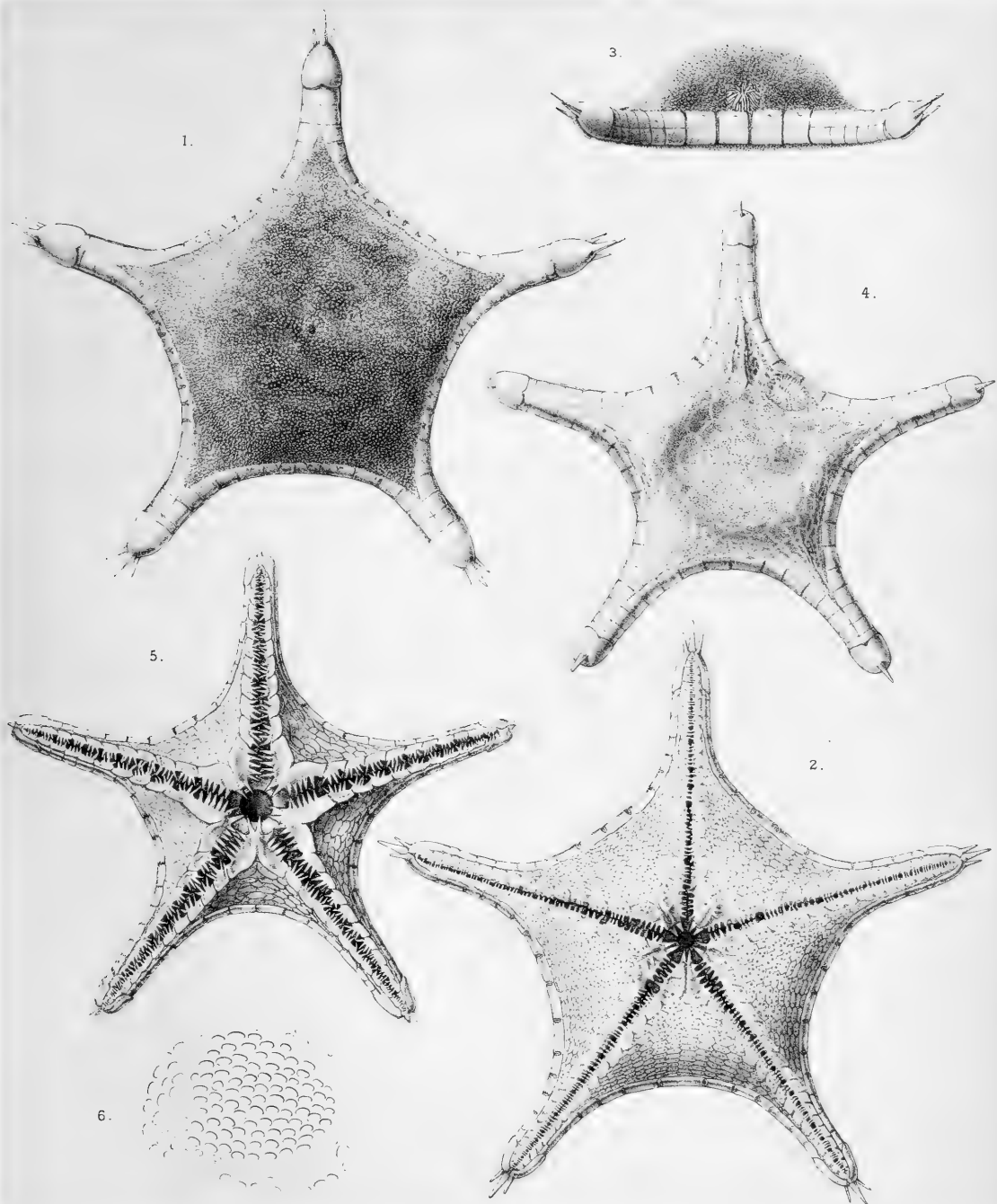
Fig. 3. Profile view; magnified 3 diameters.

Fig. 4. Abactinal aspect of a young example; magnified 4 diameters.

Fig. 5. Actinal aspect of a young example; magnified 4 diameters.

Fig. 6. An embryonic abactinal plate; magnified 54 diameters.

[For magnified details of this species see Pl. XXVIII. figs. 13-16.]



F. H. Michael del.

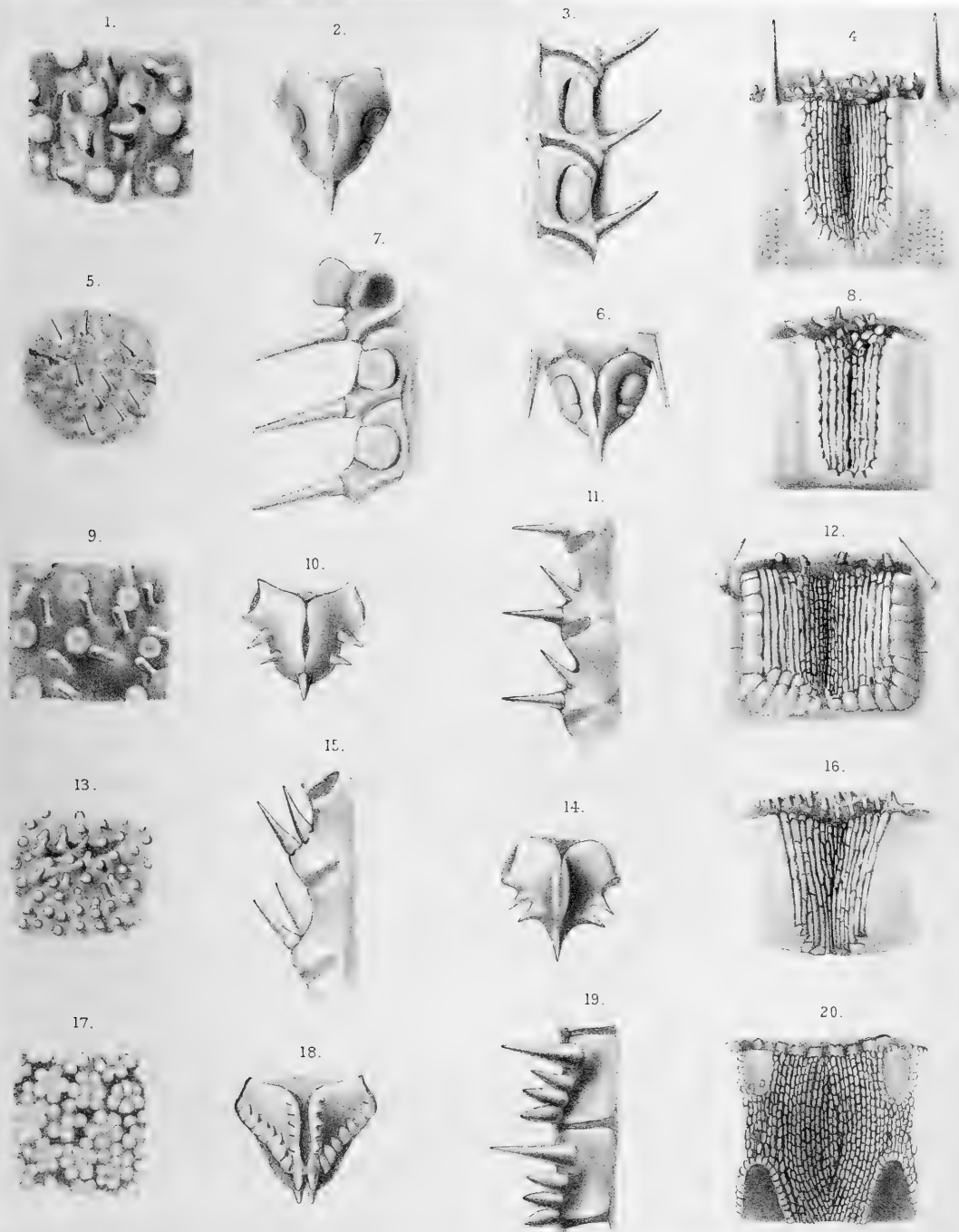
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HYPHALASTER HYALINUS, n. sp.

PLATE XXVII.

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Figs. 1-4. PORCELLANASTER CRASSUS, n. sp.	141
Fig. 1. A portion of the abactinal surface ; magnified 20 diameters.	
Fig. 2. Mouth-plates ; magnified 5 diameters.	
Fig. 3. Adambulacral plates, with segmental pits and papillæ ; magnified 10 diameters.	
Fig. 4. A cribriform organ ; magnified 6 diameters.	
[For macroscopic figures of this species see Pl. XXII. figs. 4-7.]	
Figs. 5-8. PORCELLANASTER GRACILIS, n. sp.	143
Fig. 5. A portion of the abactinal surface ; magnified 15 diameters.	
Fig. 6. Mouth-plates ; magnified 10 diameters.	
Fig. 7. Adambulacral plates, with segmental pits and papillæ ; magnified 18 diameters.	
Fig. 8. A cribriform organ ; magnified 15 diameters.	
[For macroscopic figures of this species see Pl. XXII. figs. 1-3.]	
Figs. 9-12. PORCELLANASTER CAULIFER, n. sp.	138
Fig. 9. A portion of the abactinal surface ; magnified 20 diameters.	
Fig. 10. Mouth-plates ; magnified 10 diameters.	
Fig. 11. Adambulacral plates ; magnified 15 diameters.	
Fig. 12. A cribriform organ ; magnified 12 diameters.	
[For macroscopic figures of this species see Pl. XXI. figs. 5-10.]	
Figs. 13-16. PORCELLANASTER TUBEROSUS, n. sp.	140
Fig. 13. A portion of the abactinal surface ; magnified 20 diameters.	
Fig. 14. Mouth-plates ; magnified 8 diameters.	
Fig. 15. Adambulacral plates ; magnified 16 diameters.	
Fig. 16. A cribriform organ ; magnified 9 diameters.	
[For macroscopic figures of this species see Pl. XXIII. figs. 1-4.]	
Figs. 17-20. STYRACASTER HORRIDUS, n. sp.	150
Fig. 17. A portion of the abactinal surface ; magnified 20 diameters.	
Fig. 18. Mouth-plates ; magnified 4 diameters.	
Fig. 19. Adambulacral plates ; magnified 8 diameters.	
Fig. 20. A cribriform organ ; magnified 5 diameters.	
[For macroscopic figures of this species see Pl. XXIII. figs. 5-7.]	



W. H. Michael del.

E. A. Mearns sculp.

1-4. PORCELLANASTER CRASSUS, n. sp.
9-12. PORCELLANASTER CAULIFER, n. sp.

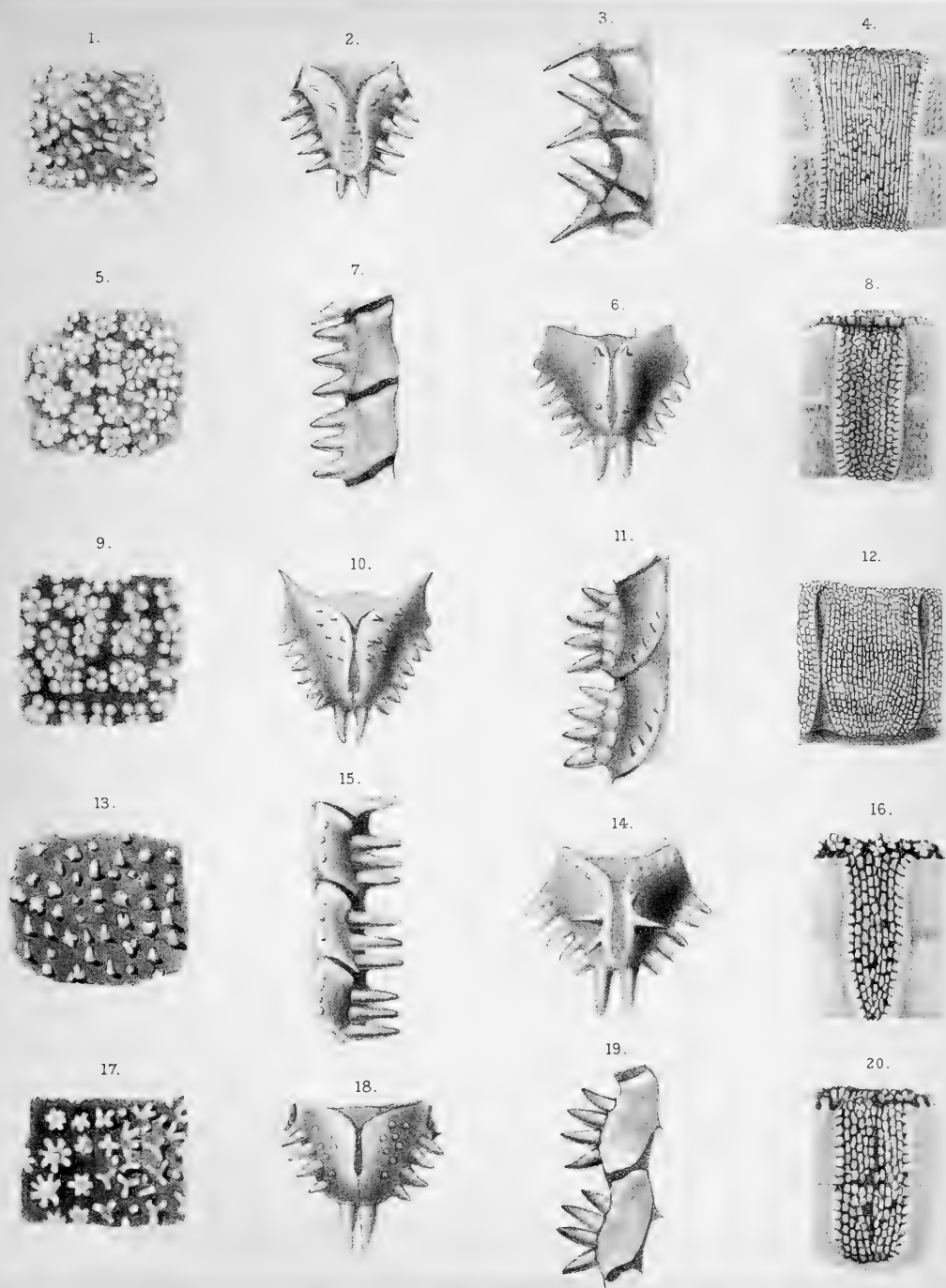
5-8. PORCELLANASTER GRACILIS, n. sp.
13-16. PORCELLANASTER TUBEROSUS, n. sp.

17-20. STYRACASTER HORRIDUS, n. sp.

PLATE XXVIII.

PLATE XXVIII.

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Figs. 1-4. <i>STYRACASTER ARMATUS</i> , n. sp.	153
Fig. 1. A portion of the abactinal surface ; magnified 18 diameters.	
Fig. 2. Mouth-plates ; magnified 5 diameters.	
Fig. 3. Adambulacral plates ; magnified 9 diameters.	
Fig. 4. A cribriform organ ; magnified 6 diameters.	
[For macroscopic figures of this species see Pl. XXIV. figs. 1-4.]	
Figs. 5-8. <i>HYPHALASTER INERMIS</i> , n. sp.	162
Fig. 5. A portion of the abactinal surface ; magnified 20 diameters.	
Fig. 6. Mouth-plates ; magnified 9 diameters.	
Fig. 7. Adambulacral plates ; magnified 12 diameters.	
Fig. 8. A cribriform organ ; magnified 9 diameters.	
[For macroscopic figures of this species see Pl. XXV. figs. 4-6.]	
Figs. 9-12. <i>HYPHALASTER PLANUS</i> , n. sp.	165
Fig. 9. A portion of the abactinal surface ; magnified 18 diameters.	
Fig. 10. Mouth-plates ; magnified 5 diameters.	
Fig. 11. Adambulacral plates ; magnified 8 diameters.	
Fig. 12. A cribriform organ ; magnified 6 diameters.	
[For macroscopic figures of this species see Pl. XXV. figs. 1-3.]	
Figs. 13-16. <i>HYPHALASTER HYALINUS</i> , n. sp.	156
Fig. 13. A portion of the abactinal surface ; magnified 15 diameters.	
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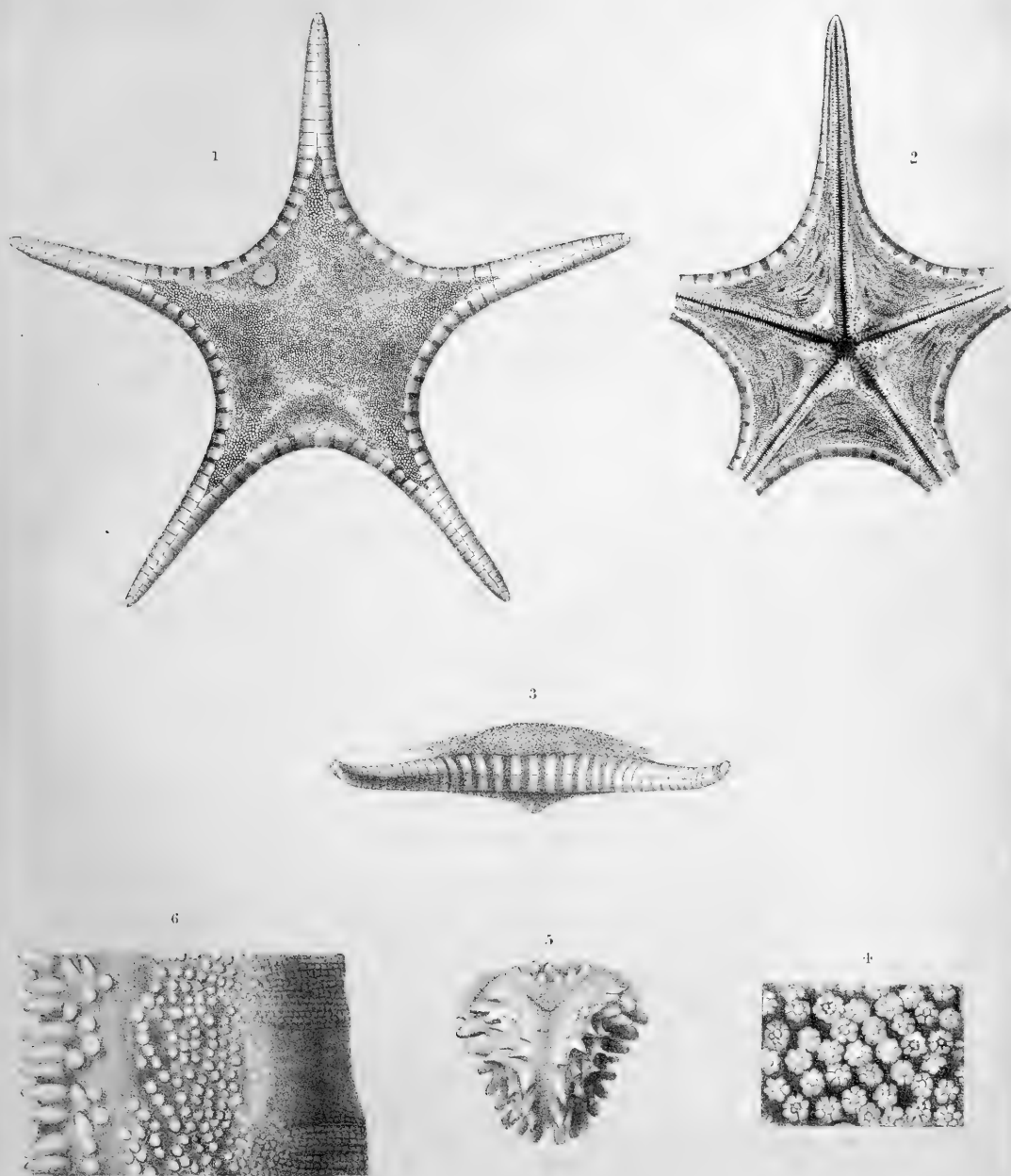


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PLATE XXX.

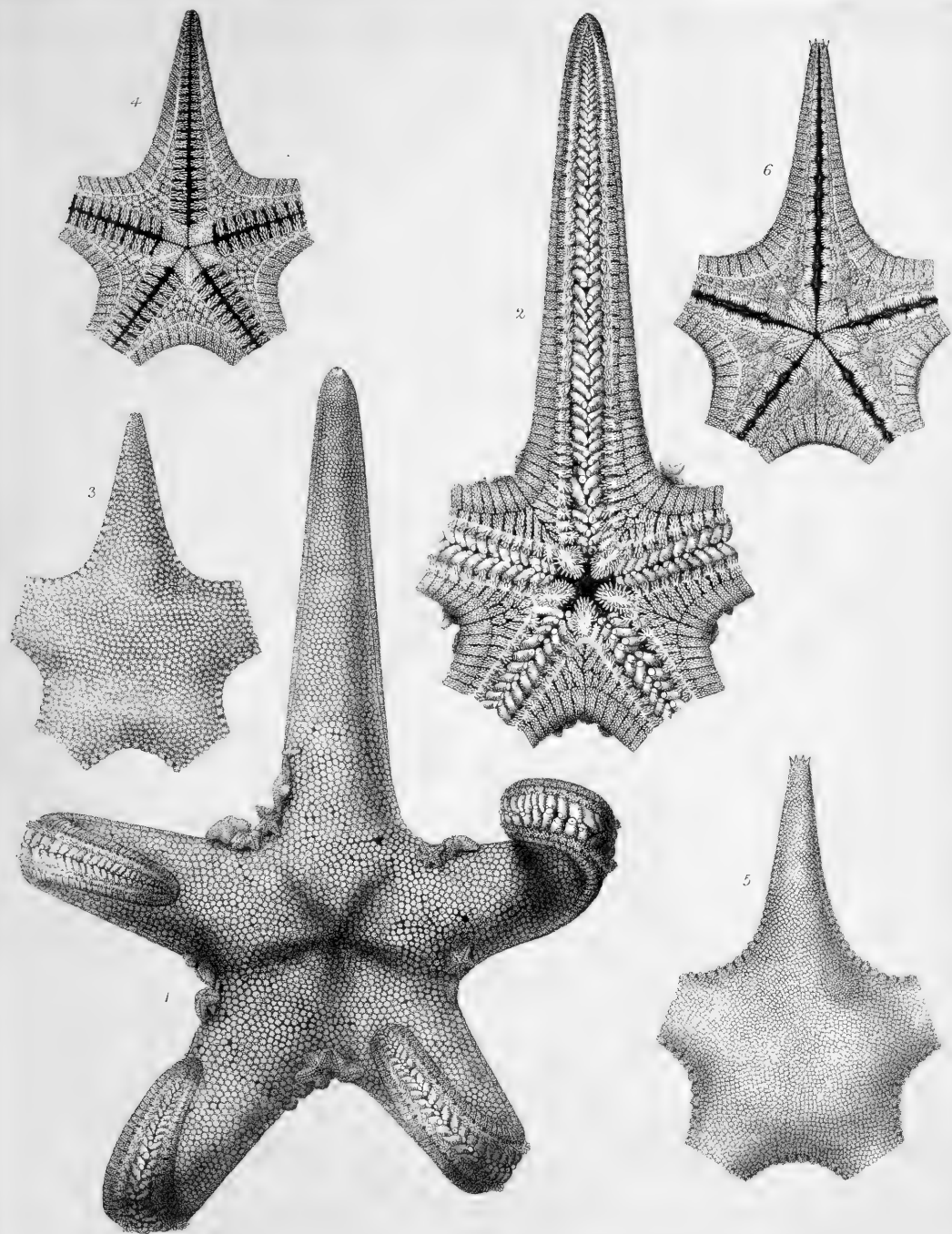
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W.H. Smith del. Hollich lith

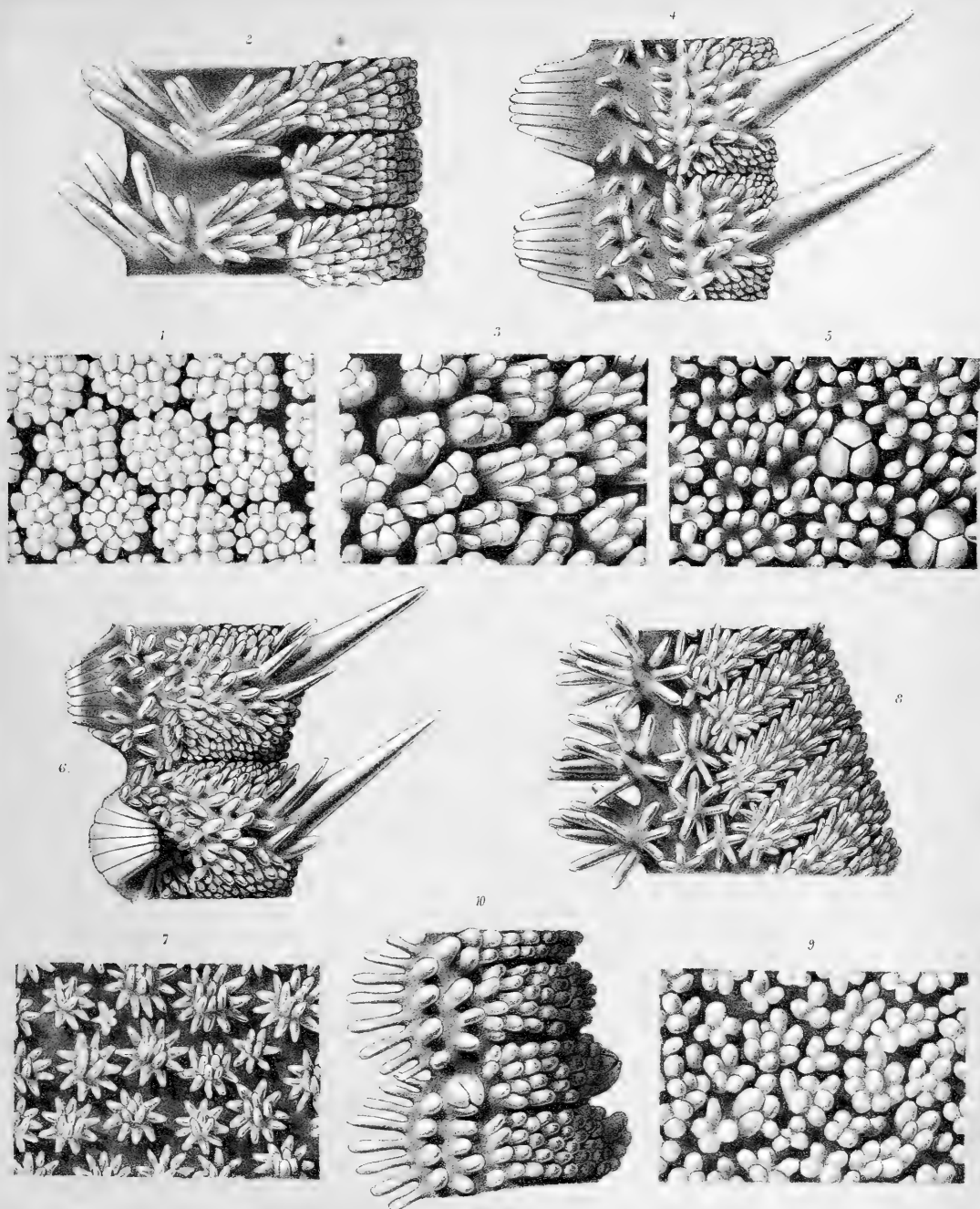
Hankar lamp

1-2. *LEPTOPTYCHASTER KERGUELENENSIS* Smith 3-4. *LEPTOPTYCHASTER ANTARCTICUS*, n.sp.
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1-2. LEPTOPTYCHASTER KERQUELENENSIS, Smith, n. sp. 3-4. DYTASTER NOBILIS, n. sp.
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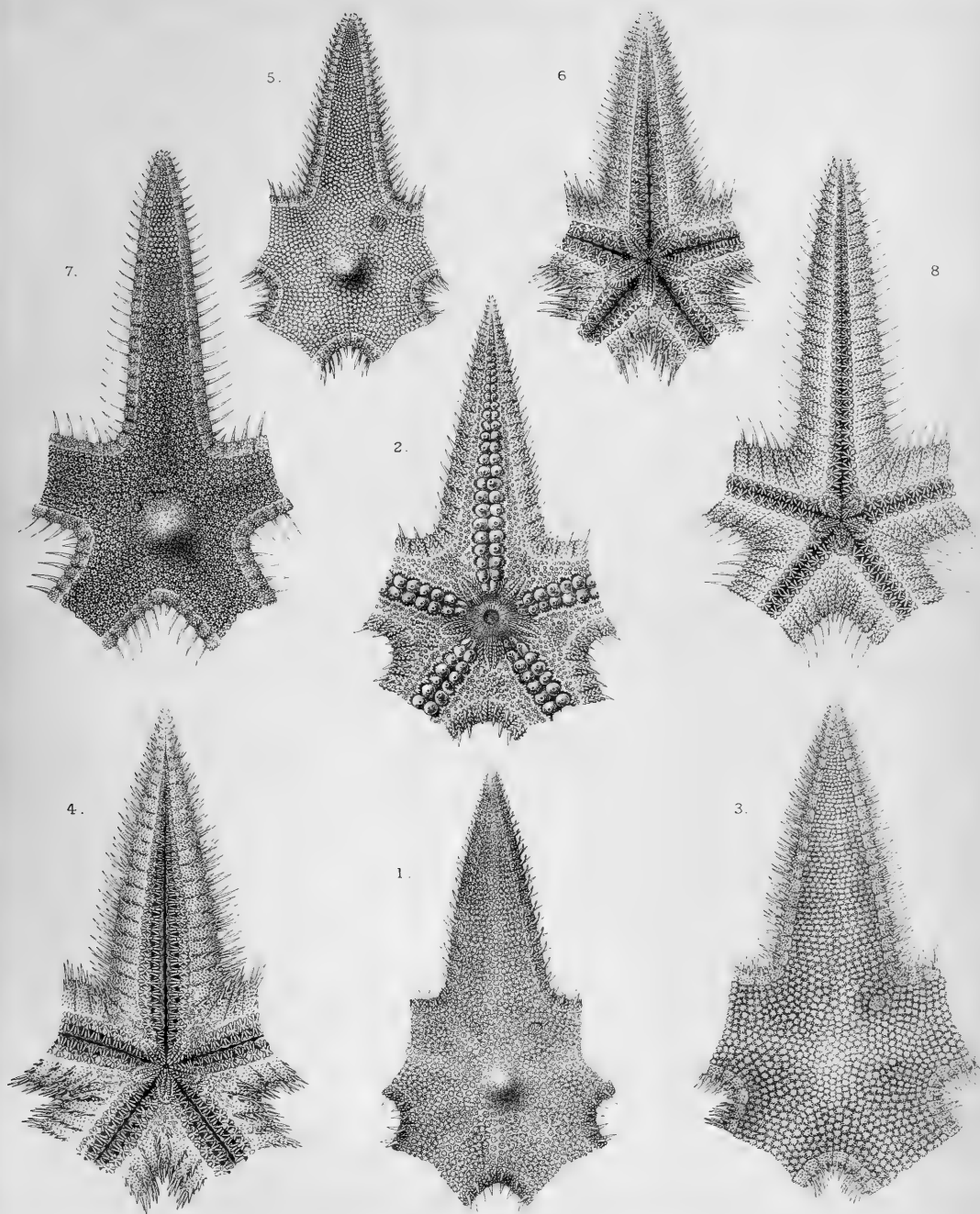
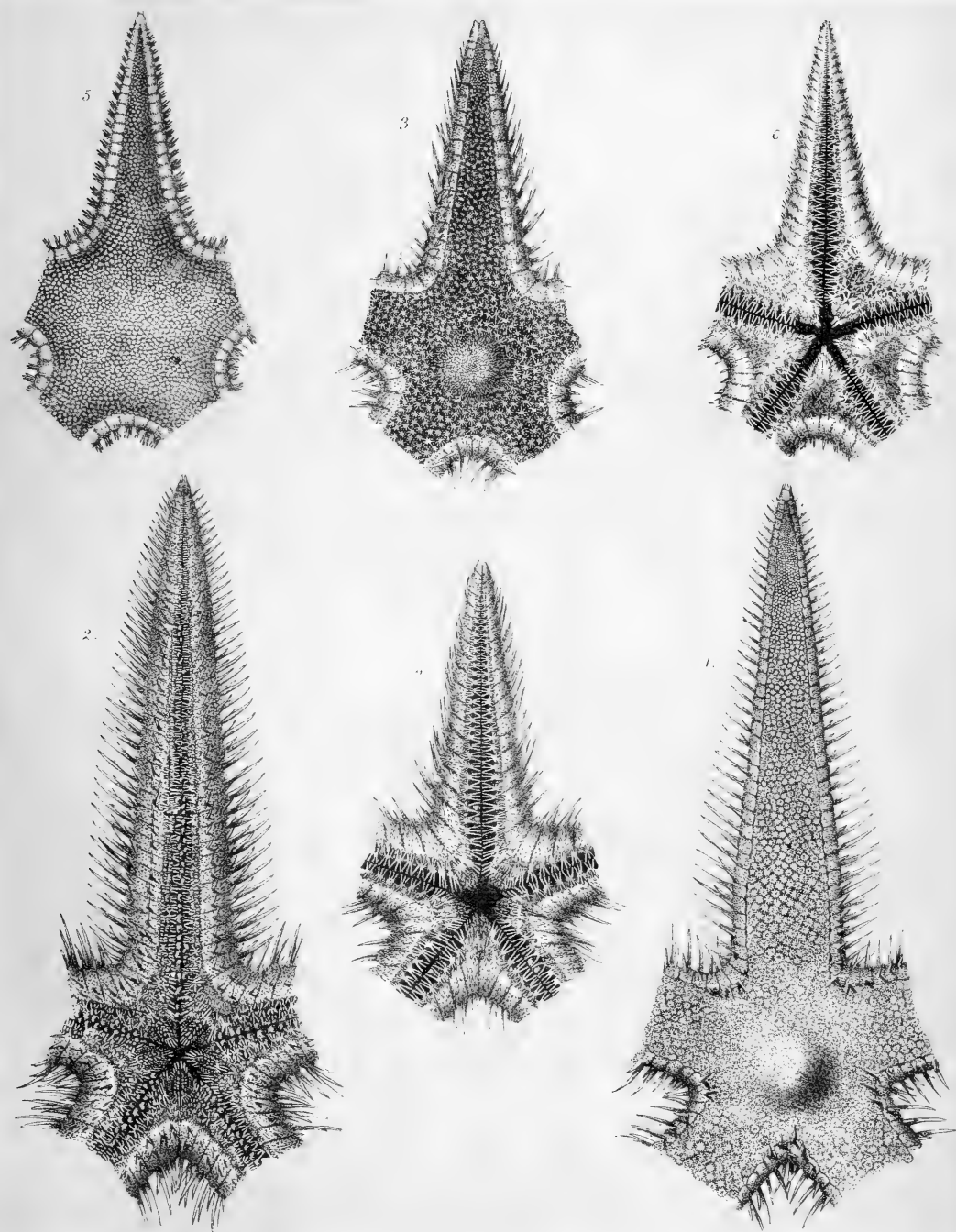


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F.H. Michalski, del. Hollick Jell

Hollick Jell

1-2. *ASTROPECTEN ACANTHIFER*, n. sp.

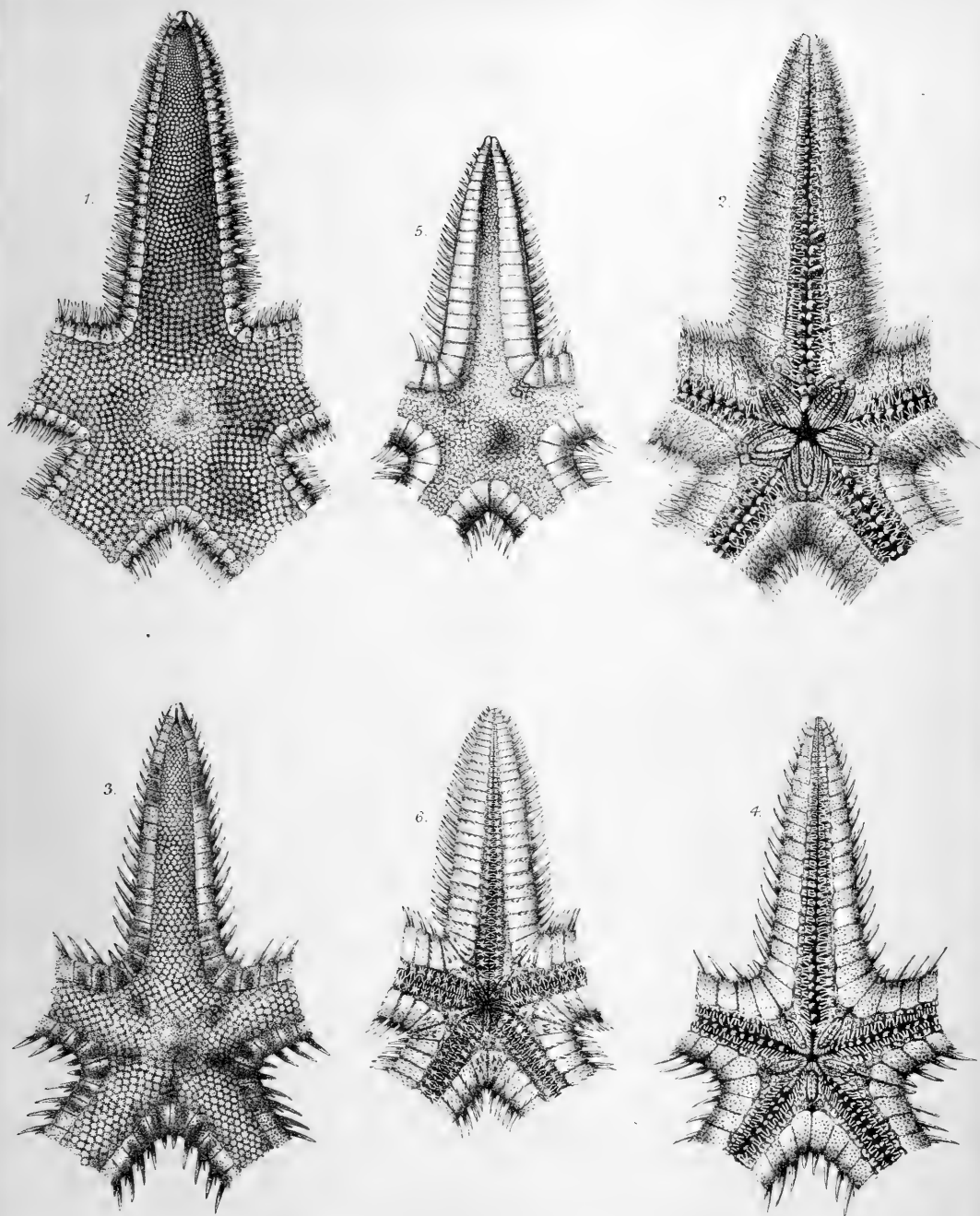
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Ed. Michael del. Hollick lith.

Hankert imp.

1-2. *ASTROPECTEN PONTOPOREUS*, n. sp.

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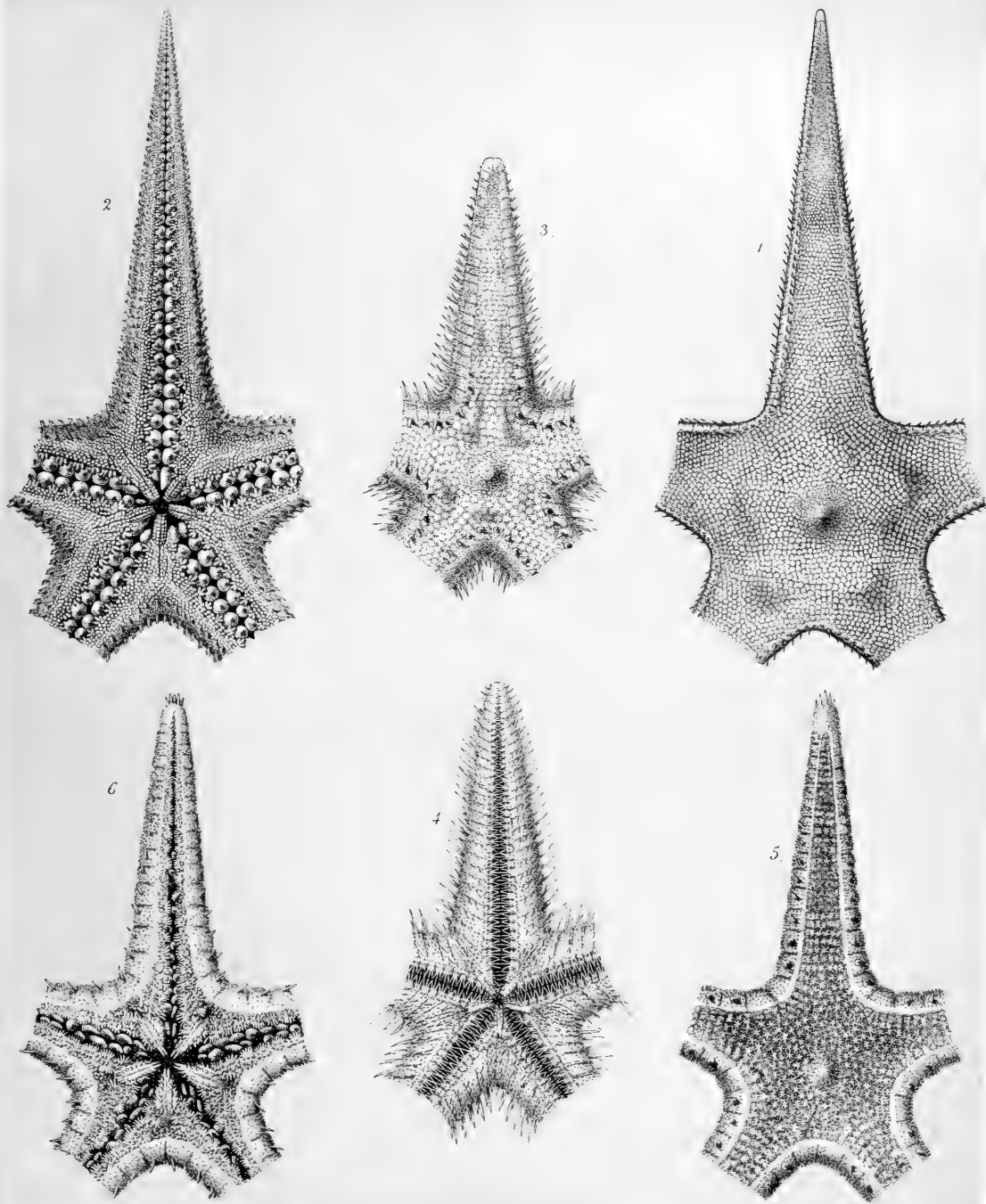
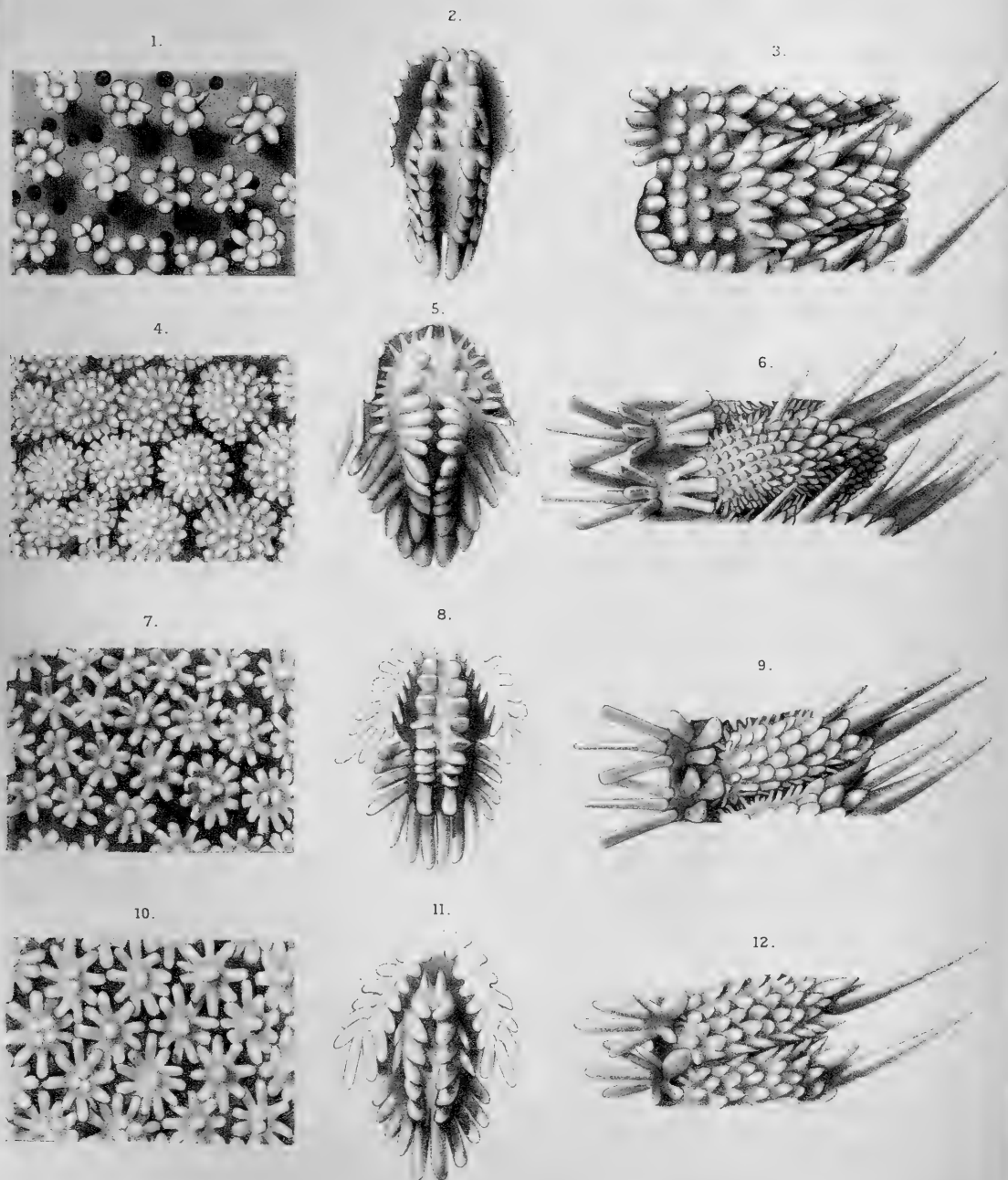


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1-3. *ASTROPECTEN BREVISPINUS*, n.sp.
7-9. *ASTROPECTEN HERMATOPHILUS*, n.sp.

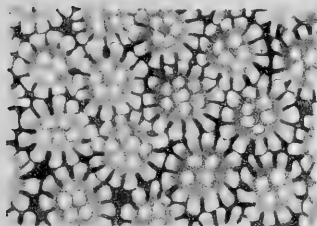
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10-12. *ASTROPECTEN MONACANTHUS*, n.sp.

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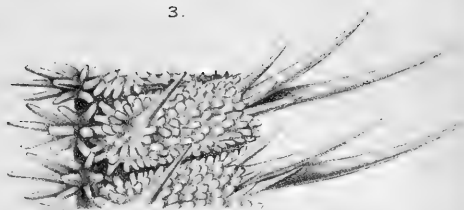
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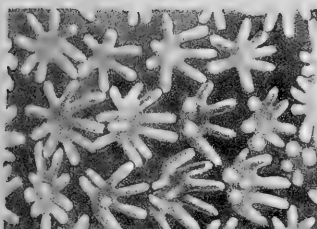
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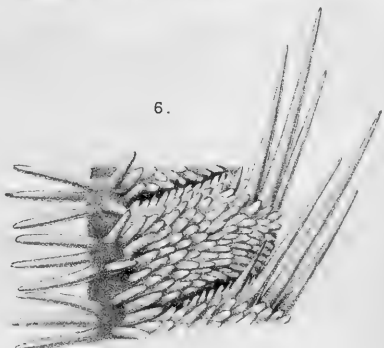
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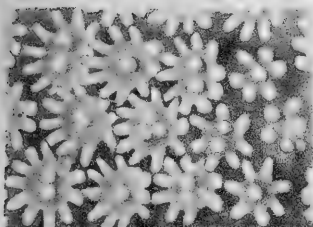
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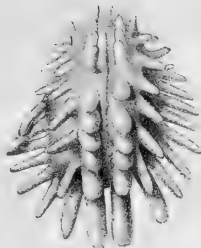
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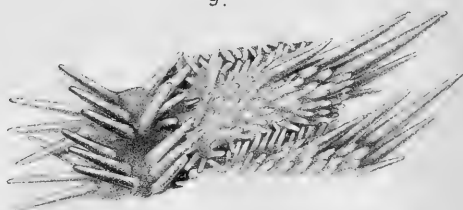
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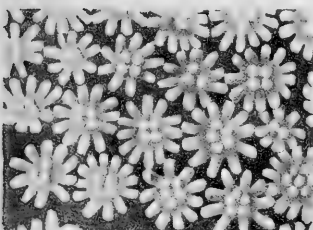
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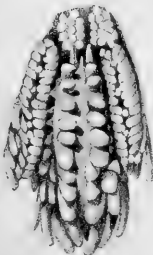
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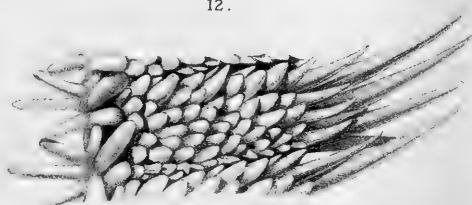


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[For macroscopic figures of this species see Pl. XXXVI. figs. 5, 6.]	

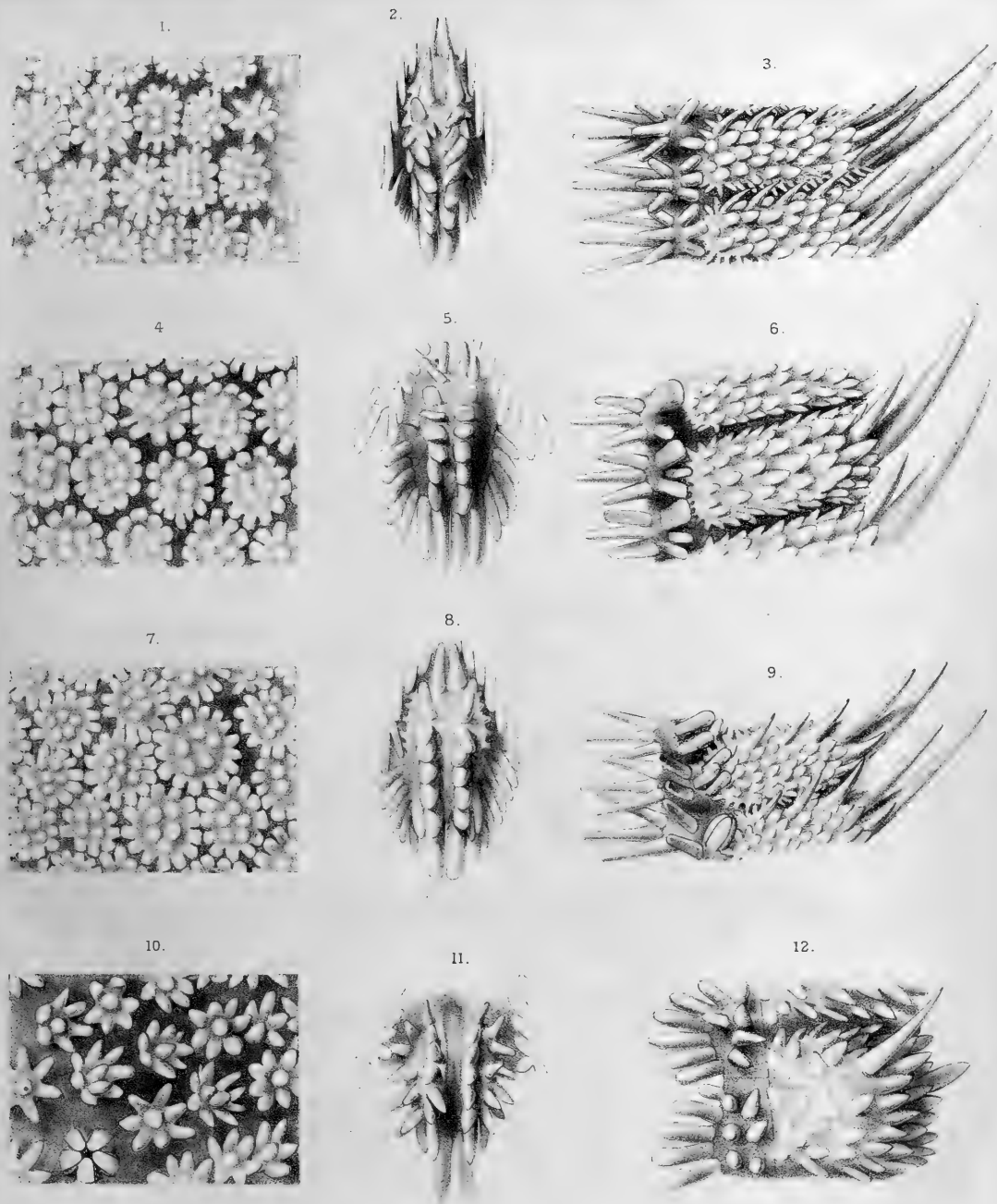


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[For magnified details of this species see Pl. XLII. figs. 7, 8.]

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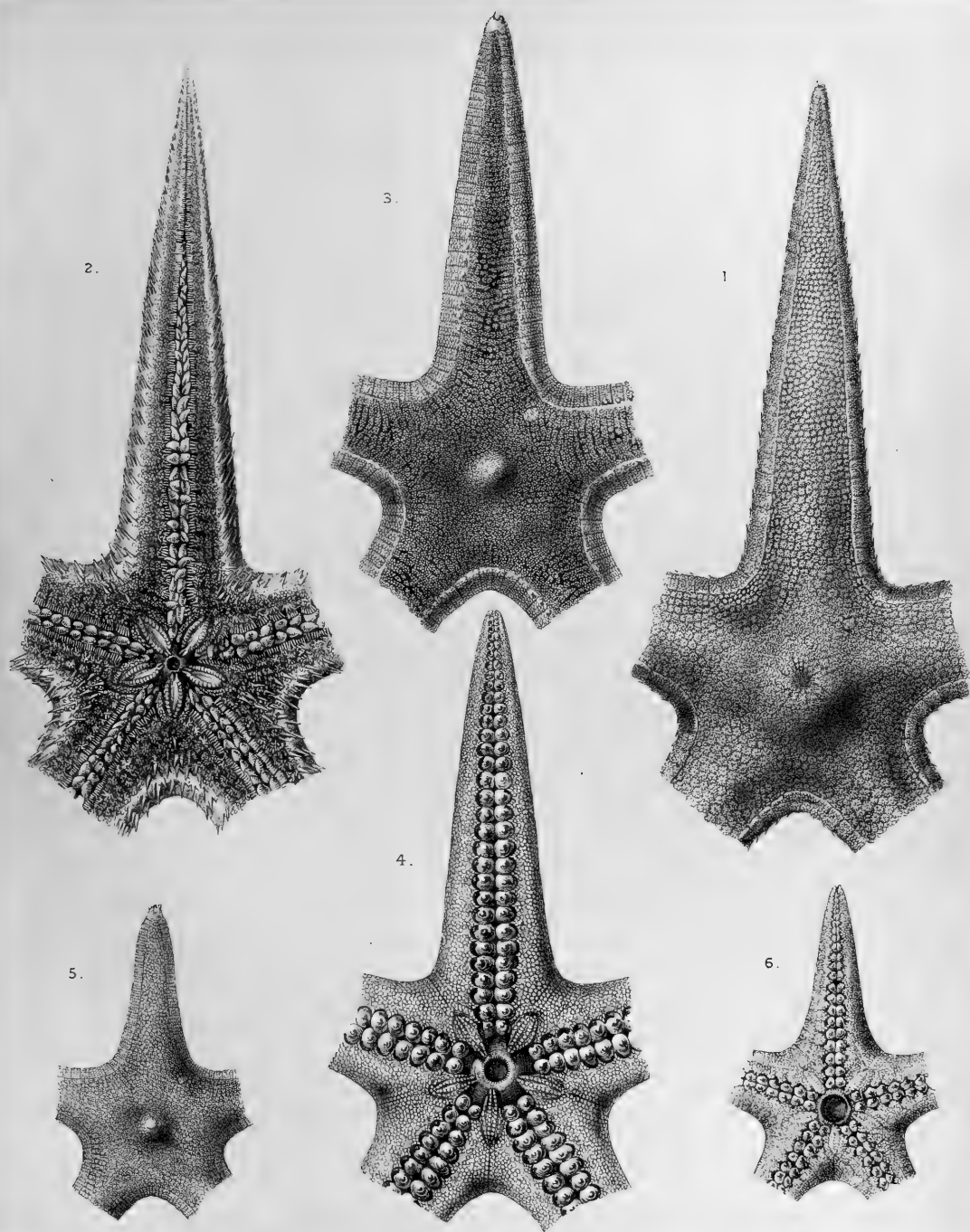
Fig. 3. Abactinal aspect; magnified 3 diameters.

Fig. 4. Actinal aspect; magnified 3 diameters.

Fig. 5. Abactinal aspect of a young example; magnified 3 diameters.

Fig. 6. Actinal aspect of a young example; magnified 3 diameters.

[For magnified details of this species see Pl. XV. figs. 7-11.]



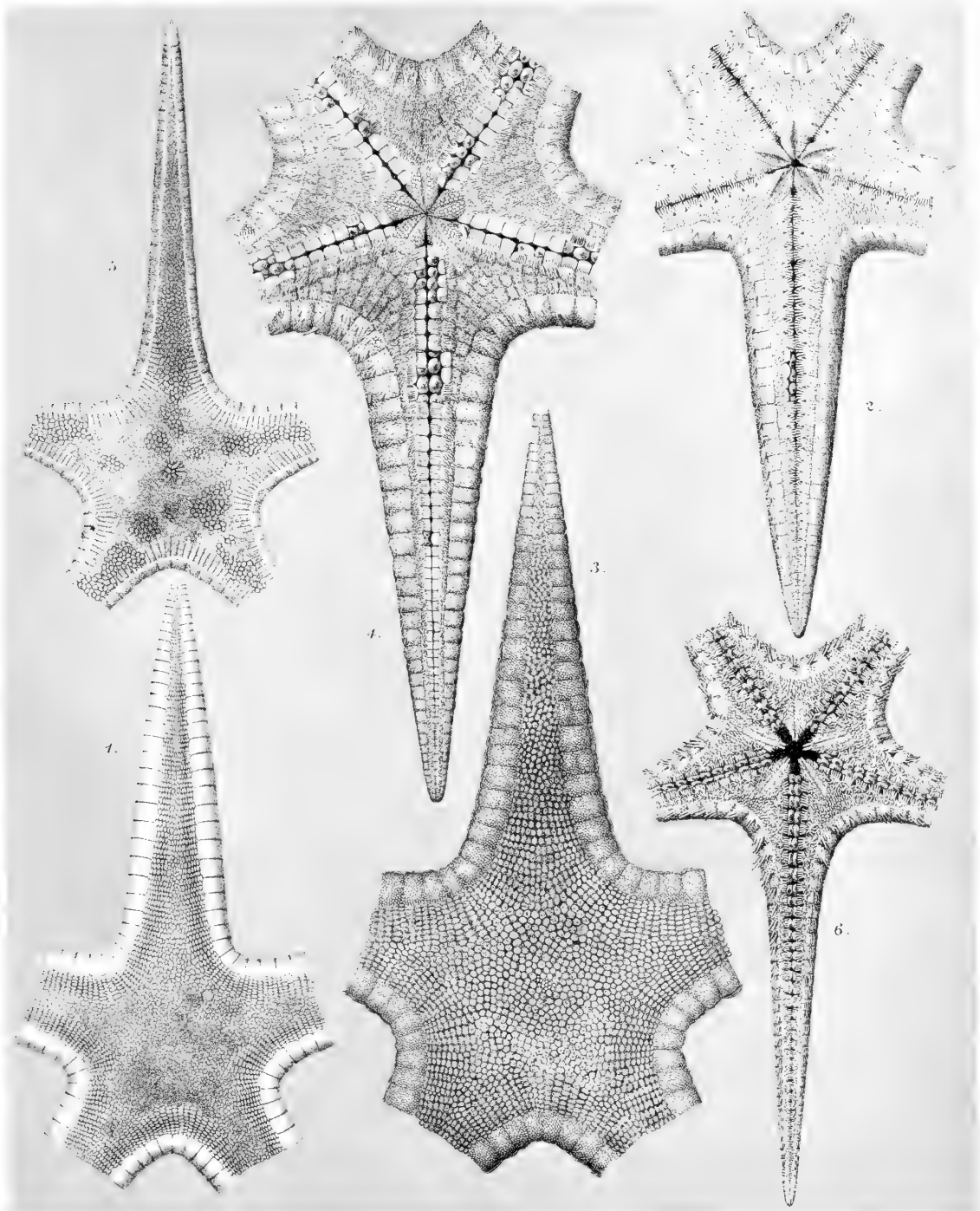
1-2. PSILASTER ACUMINATUS, n. sp.

3-6. PHOXASTER PUMILUS, n. sp.

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1-2. PSILASTER CASSIOPE, n. sp. 3-4. PSILASTER PATAGIATUS, n. sp.
5-6. PSILASTER GRACILIS, n. sp.

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[For macroscopic figures of this species see Pl. XL. figs. 1, 2.]	
Figs. 9-11. <i>PSILASTER GRACILIS</i> , n. sp.	230
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Fig. 10. Adambulacral and infero-marginal plates ; magnified 15 diameters.	
Fig. 11. Mouth-plates ; magnified 7 diameters.	
[For macroscopic figures of this species see Pl. XLI. figs. 5, 6.]	

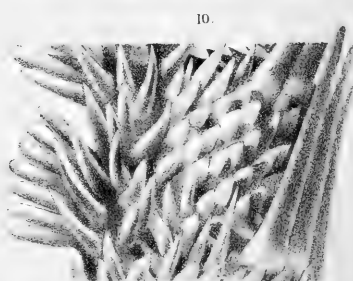
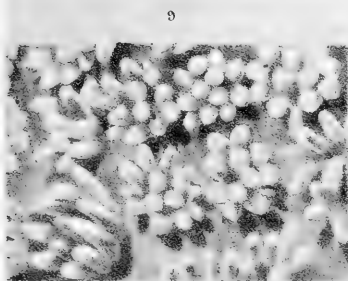
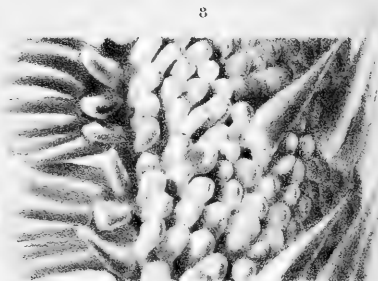
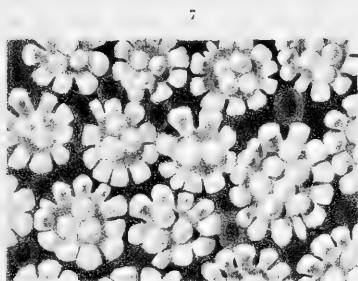
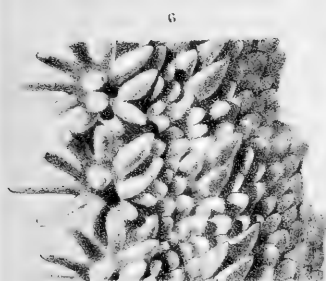
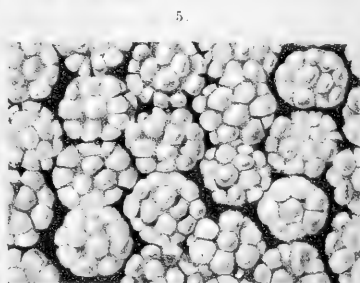
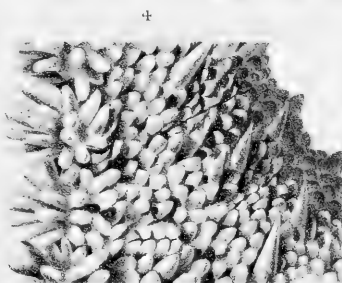
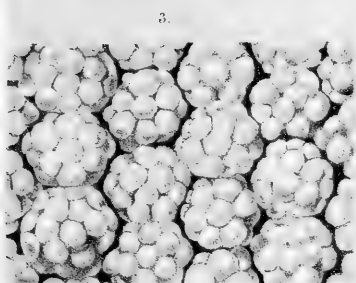
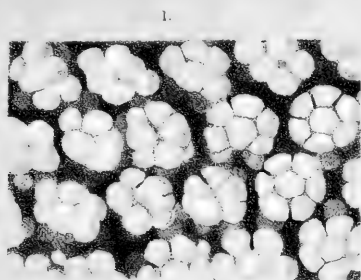


PLATE XLIII.

PLATE XLIII.

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Figs. 1, 2. <i>LUIDIA ASPERA</i> , n. sp.	248.

Fig. 1. Abactinal aspect; magnified $1\frac{1}{2}$ diameters.

Fig. 2. Actinal aspect; magnified $1\frac{1}{2}$ diameters.

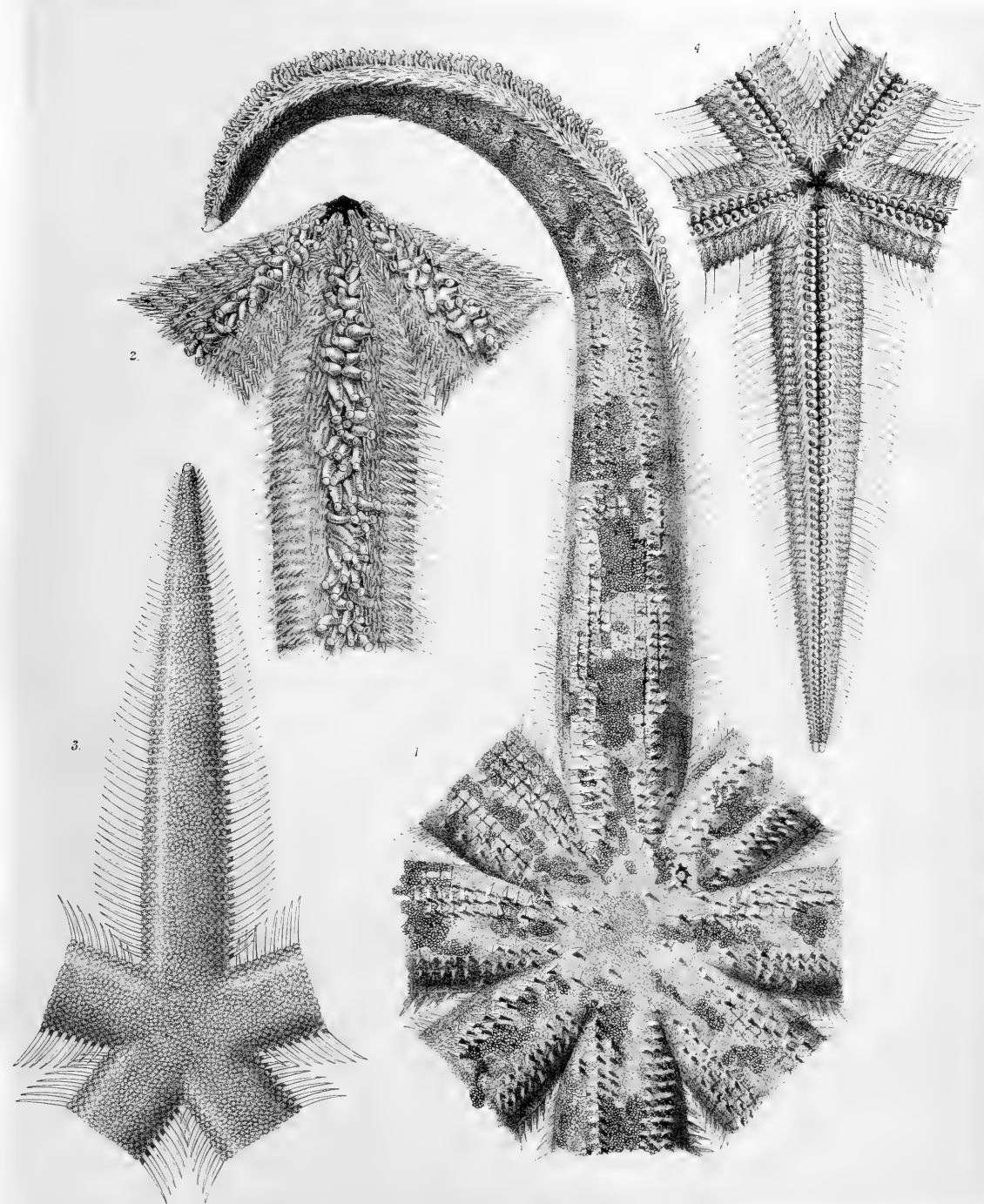
[For magnified details of this species see Pl. XLV. figs. 9, 10.]

	254
Figs. 3, 4. <i>LUIDIA LONGISPINA</i> , n. sp.	

Fig. 3. Abactinal aspect; magnified 2 diameters.

Fig. 4. Actinal aspect; magnified 2 diameters.

[For magnified details of this species see Pl. XLV. figs. 3, 4.]



W.H. Crowther del.

Monter Bros. lith.

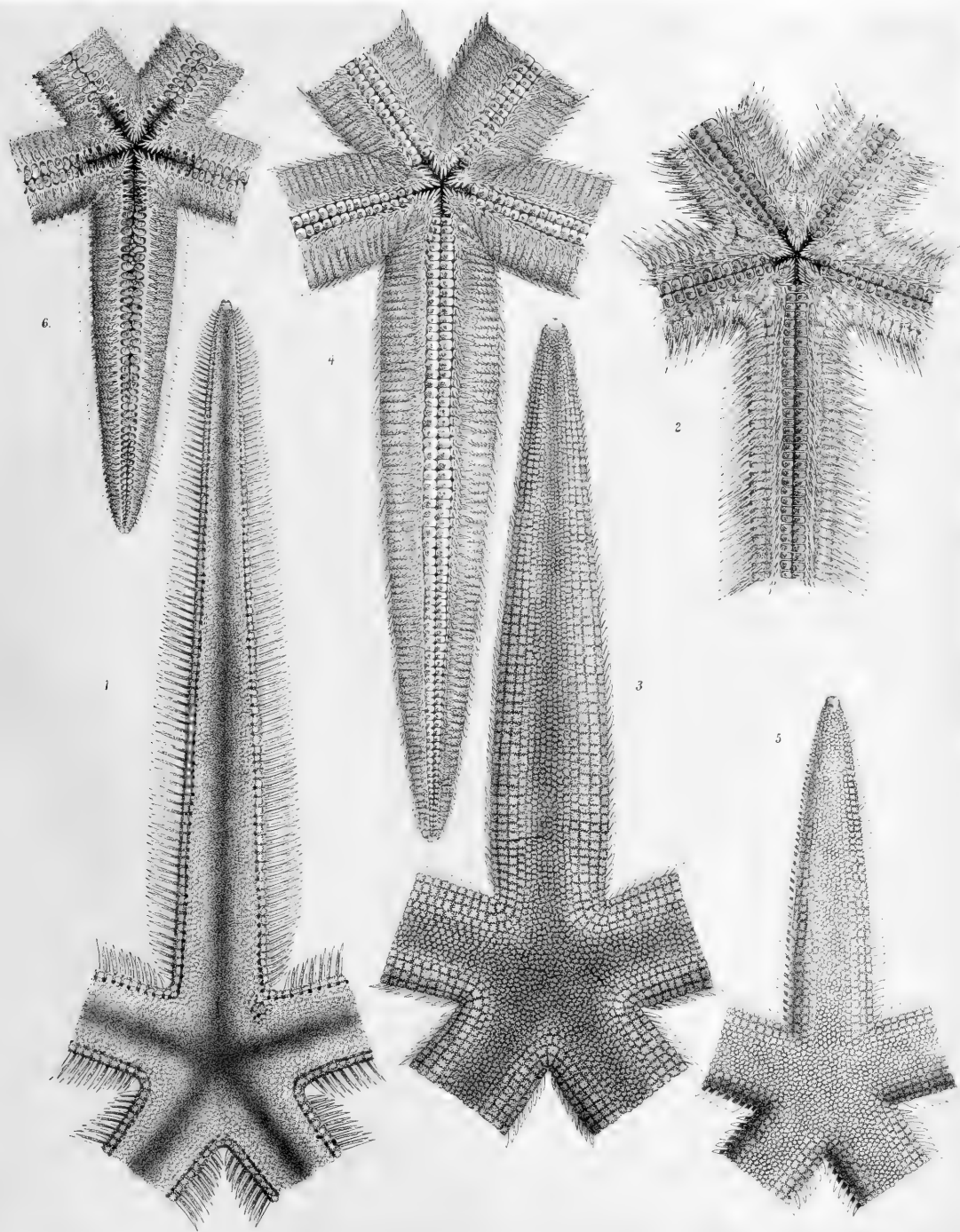
1-2. *LUIDIA ASPERA*, n.sp.

3-4. *LUIDIA LONGISPINA*, n.sp.

PLATE XLIV.

PLATE XLIV.

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Figs. 1, 2. <i>LUIDIA AFRICANA</i> , n. sp.	256
Fig. 1. Abactinal aspect ; natural size.	
Fig. 2. Actinal aspect ; natural size.	
[For magnified details of this species see Pl. XLV. figs. 1, 2.]	
Figs. 3, 4. <i>LUIDIA LIMBATA</i> , n. sp.	251
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Fig. 4. Actinal aspect ; magnified $1\frac{1}{2}$ diameters.	
[For magnified details of this species see Pl. XLV. figs. 7, 8.]	
Figs. 5, 6. <i>LUIDIA FORFICIFER</i> , n. sp.	258
Fig. 5. Abactinal aspect ; magnified 2 diameters.	
Fig. 6. Actinal aspect ; magnified 2 diameters.	
[For magnified details of this species see Pl. XLV. figs. 5, 6.]	



1-2. *LUIDIA AFRICANA*, n.sp.

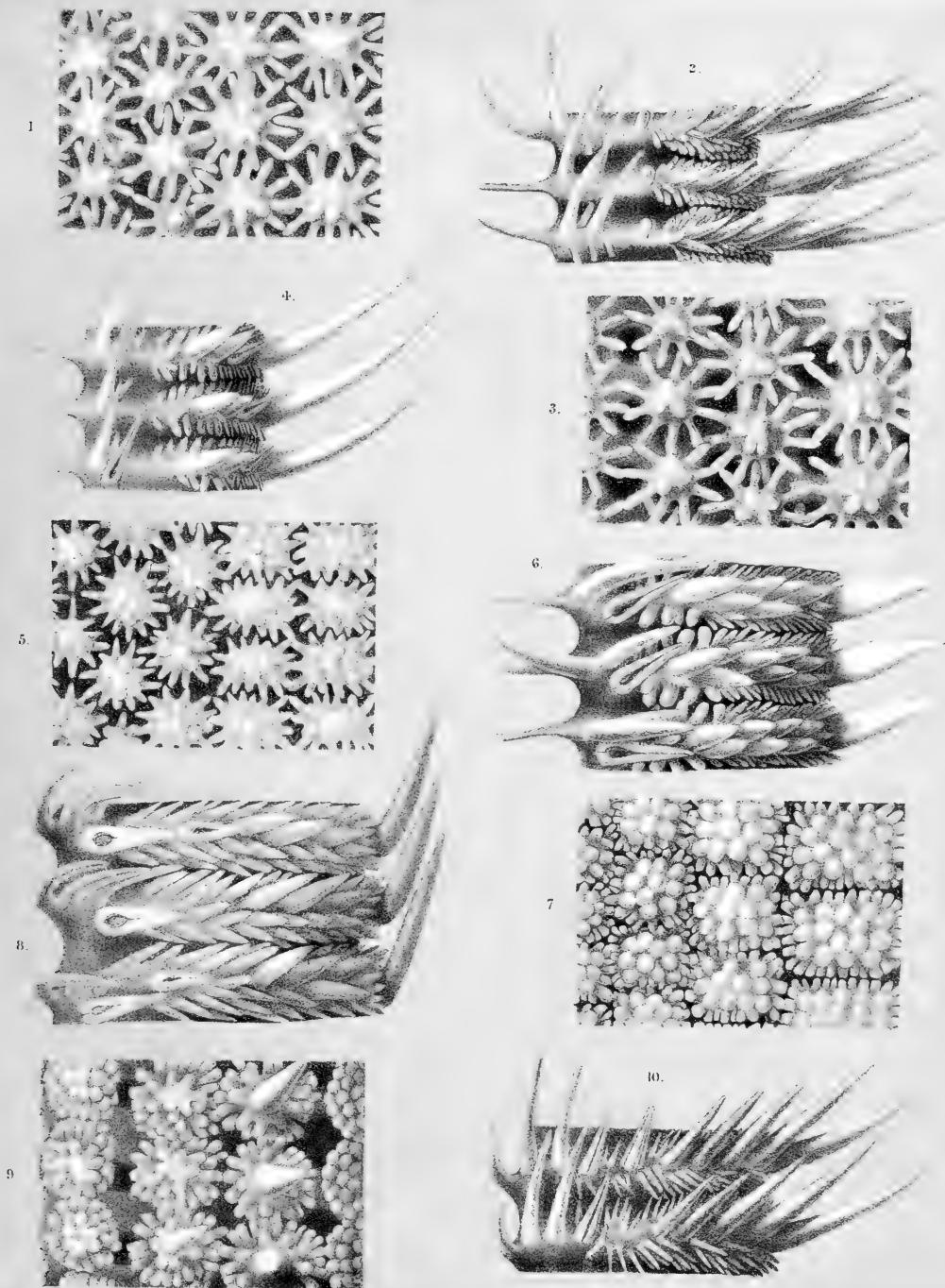
3-4. *LUIDIA LIMBATA*, n.sp.

5-6. *LUIDIA FORFICIFER*, n.sp.

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Fig. 2. Adambulacral and infero-marginal plates ; magnified 6 diameters.	
[For macroscopic figures of this species see Pl. XLIV. figs. 1, 2.]	
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[For macroscopic figures of this species see Pl. XLIII. figs. 3, 4.]	
Figs. 5, 6. <i>LUIDIA FORFICIFER</i> , n. sp.	258
Fig. 5. A portion of the abactinal surface ; magnified 15 diameters.	
Fig. 6. Adambulacral and infero-marginal plates ; magnified 15 diameters.	
[For macroscopic figures of this species see Pl. XLIV. figs. 5, 6.]	
Figs. 7, 8. <i>LUIDIA LIMBATA</i> , n. sp.	251
Fig. 7. A portion of the abactinal surface ; magnified 15 diameters.	
Fig. 8. Adambulacral and infero-marginal plates ; magnified 10 diameters.	
[For macroscopic figures of this species see Pl. XLIV. figs. 3, 4.]	
Figs. 9, 10. <i>LUIDIA ASPERA</i> , n. sp.	248
Fig. 9. A portion of the abactinal surface ; magnified 10 diameters.	
Fig. 10. Adambulacral and infero-marginal plates ; magnified 8 diameters.	
[For macroscopic figures of this species see Pl. XLIII. figs. 1, 2.]	

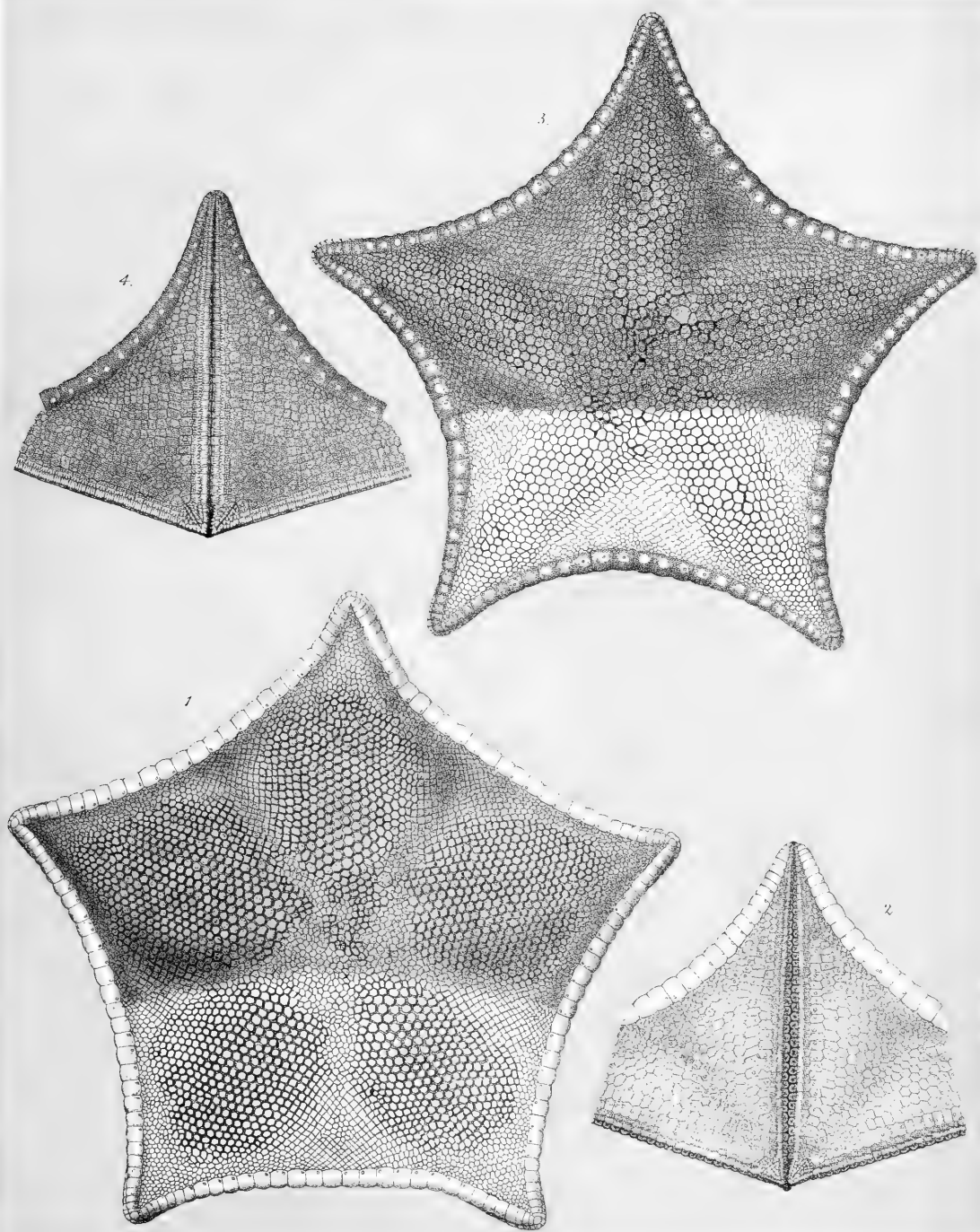


1-2. *LUIDIA AFRICANA*, n.sp. 3-4. *LUIDIA LONGISPINA*, n.sp.
 5-6. *LUIDIA FORCIFER*, n.sp. 7-8. *LUIDIA LIMBATA*, n.sp.
 9-10. *LUIDIA ASPERA*, n.sp.

PLATE XLVI.

PLATE XLVI.

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Fig. 1. Abactinal aspect ; natural size.	
Fig. 2. Actinal aspect ; natural size.	
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Fig. 4. Actinal aspect ; natural size.	
[For magnified details of this species see Pl. XLIX. figs. 3, 4.]	



W.H. Crowther del. H. Hollick lith.

1-2. PENTAGONASTER JAPONICUS, n. sp.

3-4. PENTAGONASTER PATAGONICUS, n. sp.

PLATE XLVII.

PLATE XLVII.

Figs. 1, 2. GNATHASTER MERIDIONALIS, Smith, sp.	Page 287
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Fig. 1. Abactinal aspect; magnified $1\frac{1}{2}$ diameters.

Fig. 2. Actinal aspect; magnified $1\frac{1}{2}$ diameters.

[For macroscopic figures of a young example see Pl. XLVIII. figs. 5, 6; for magnified details of the same see Pl. XLIX. figs. 11, 12.]

Figs. 3, 4. MIMASTER COGNATUS, n. sp.	336
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Fig. 3. Abactinal aspect; magnified $1\frac{1}{2}$ diameters.

Fig. 4. Actinal aspect; magnified $1\frac{1}{2}$ diameters.

[For magnified details of this species see Pl. LXII. figs. 4, 5.]

Error in the legend of the Plate:

For "n. sp." after GNATHASTER MERIDIONALIS *read* "Smith, sp."

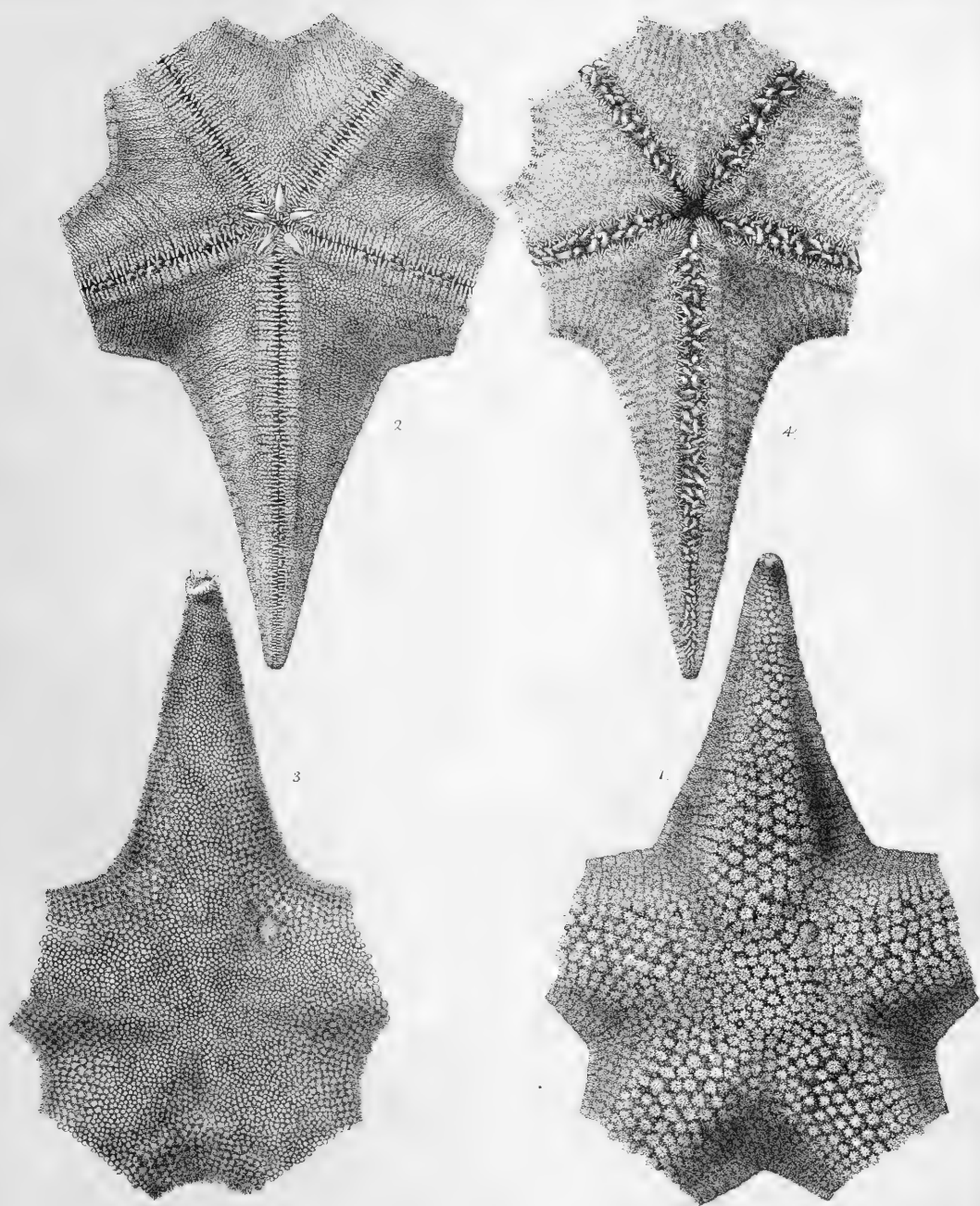
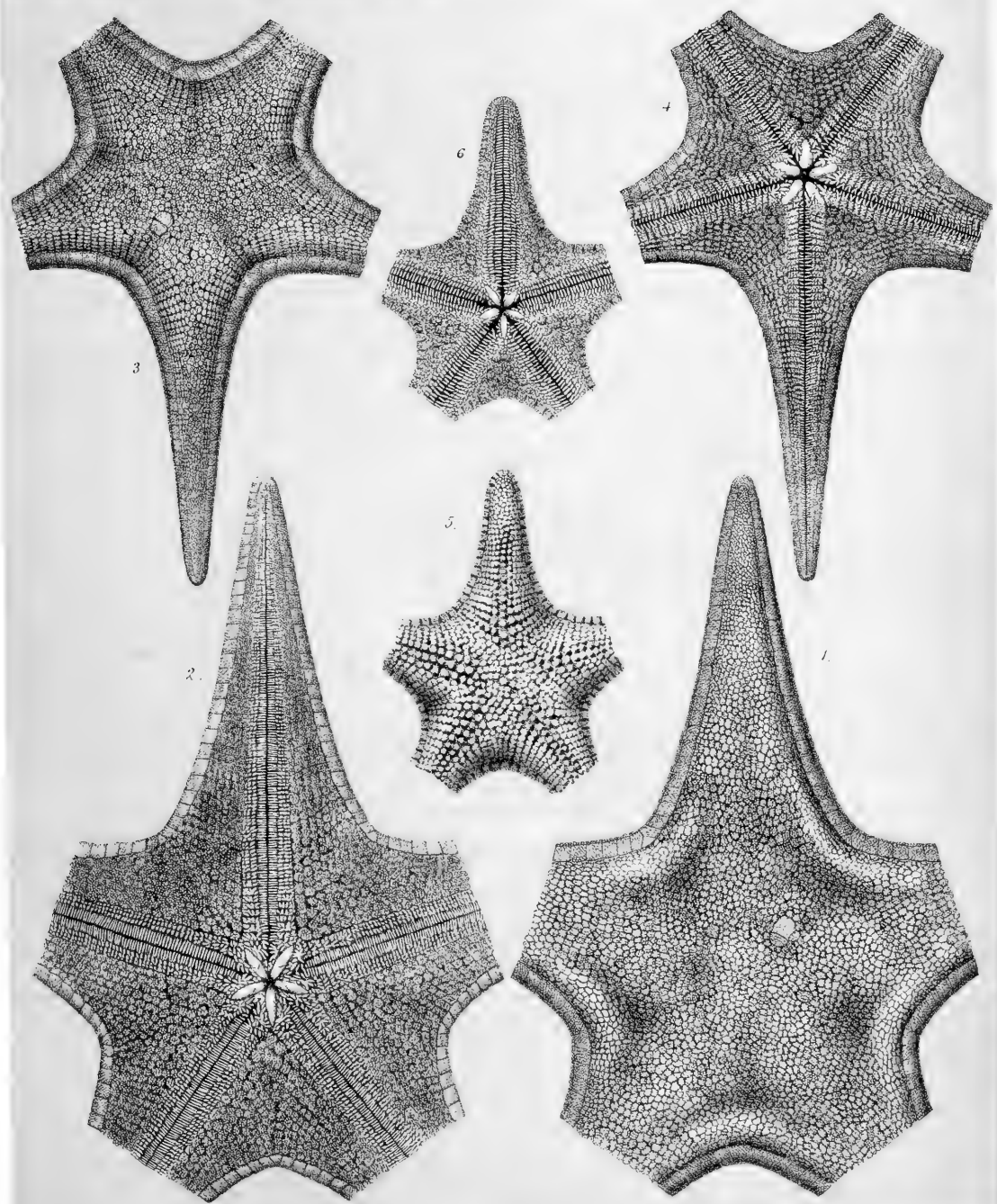


PLATE XLVIII.

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[For magnified details of this species see Pl. XLIX. figs. 5-8 ; for macroscopic figures of a young example see Pl. XIX. figs. 5, 6.]	
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[For magnified details of this example see Pl. XLIX. figs. 11, 12 ; for macroscopic figures of an adult example see Pl. XLVII. figs. 1, 2.]	



W.H. Crowther del., H. M. Schuchert

Barhart imp.

1-2. GNATHASTER ELONGATUS, n.sp.

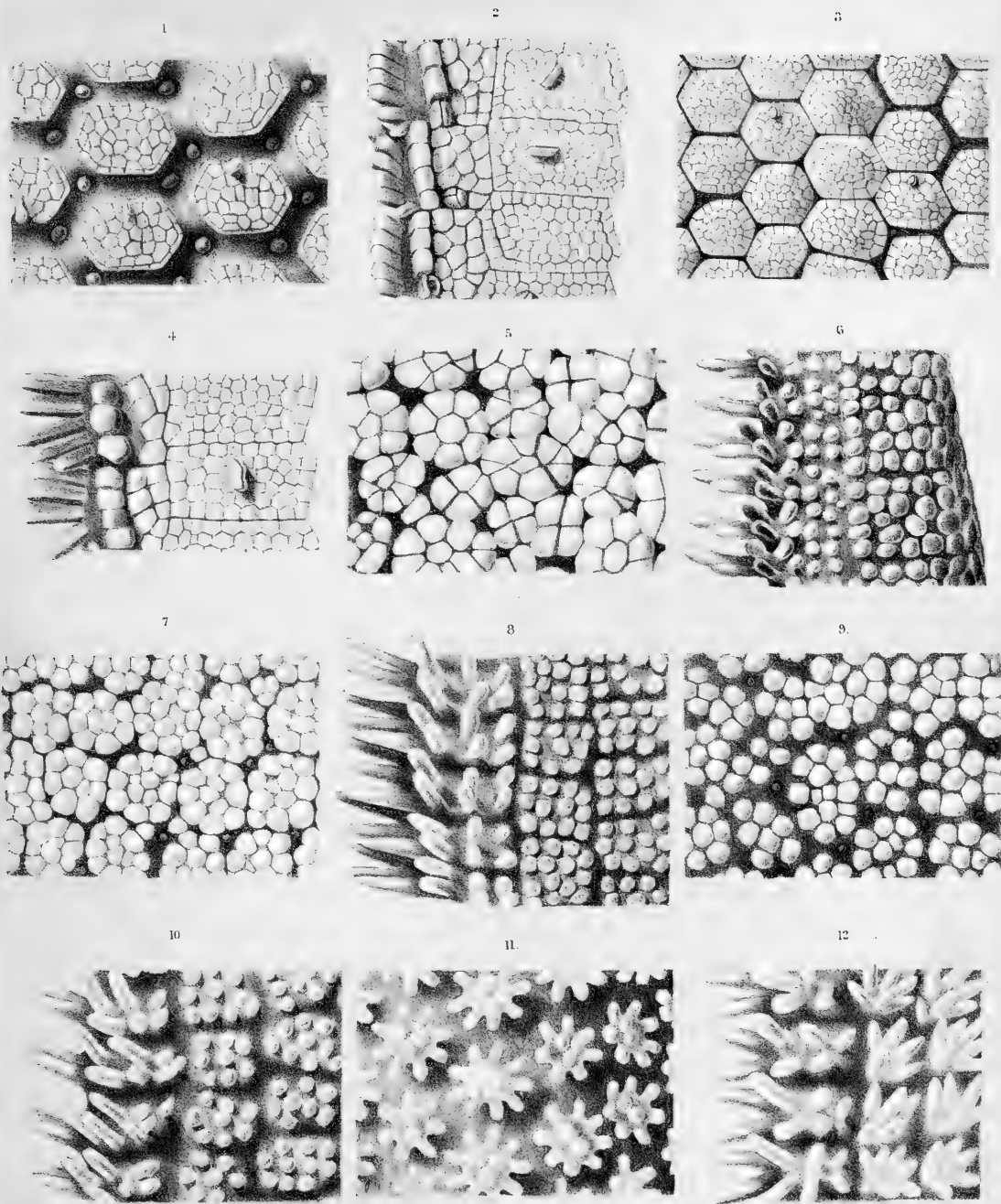
3-4. GNATHASTER ELONGATUS, n.sp. (Var.)

5-6. GNATHASTER MERIDIONALIS, Smith, sp. (Juv.)

PLATE XLIX.

PLATE XLIX.

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Fig. 1. A portion of the abactinal surface ; magnified 8 diameters.	
Fig. 2. Adambulacral plates and adjacent portion of the actinal surface ; magnified 10 diameters.	
[For macroscopic figures of this species see Pl. XLVI. figs. 1, 2.]	
Figs. 3, 4. <i>PENTAGONASTER PATAGONICUS</i> , n. sp.	269
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Fig. 4. Adambulacral plates and adjacent portion of the actinal surface ; magnified 10 diameters.	
[For macroscopic figures of this species see Pl. XLVI. figs. 3, 4.]	
Figs. 5, 6. <i>GNATHASTER ELONGATUS</i> , n. sp.	288
Fig. 5. A portion of the abactinal surface of a young example ; magnified 20 diameters.	
Fig. 6. Adambulacral plates and adjacent portion of the actinal surface of a young example ; magnified 15 diameters.	
[For macroscopic figures of this example see Pl. XIX. figs. 5, 6.]	
Figs. 7, 8. <i>GNATHASTER ELONGATUS</i> , n. sp.	288
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Fig. 8. Adambulacral plates and adjacent portion of the actinal surface ; magnified 10 diameters.	
[For macroscopic figures of this species see Pl. XLVIII. figs. 1, 2.]	
Figs. 9, 10. <i>GNATHASTER ELONGATUS</i> , n. sp. (Variety),	288
Fig. 9. A portion of the abactinal surface ; magnified 20 diameters.	
Fig. 10. Adambulacral plates and adjacent portion of the actinal surface ; magnified 10 diameters.	
[For macroscopic figures of this variety see Pl. XLVIII. figs. 3, 4.]	
Figs. 11, 12. <i>GNATHASTER MERIDIONALIS</i> , Smith, sp.	287
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[For macroscopic figures of this example see Pl. XLVIII. figs. 5, 6 ; for those of an adult example see Pl. XLVII. figs. 1, 2.]	



W. H. Crowther del et lith.

Mintern Bros imp

1-2. *PENTAGONASTER JAPONICUS*, n. sp.
 5-6. *GNATHASTER ELONGATUS*, n. sp., (juv).
 9-10. *GNATHASTER ELONGATUS*, n. sp., (var).

3-4. *PENTAGONASTER PATAGONICUS*, n. sp.
 7-8. *GNATHASTER ELONGATUS*, n. sp.
 11-12. *GNATHASTER MERIDIONALIS*, Smith, sp. (juv).

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Fig. 1. Abactinal aspect ; magnified $1\frac{1}{2}$ diameters.

Fig. 2. Actinal aspect ; magnified $1\frac{1}{2}$ diameters.

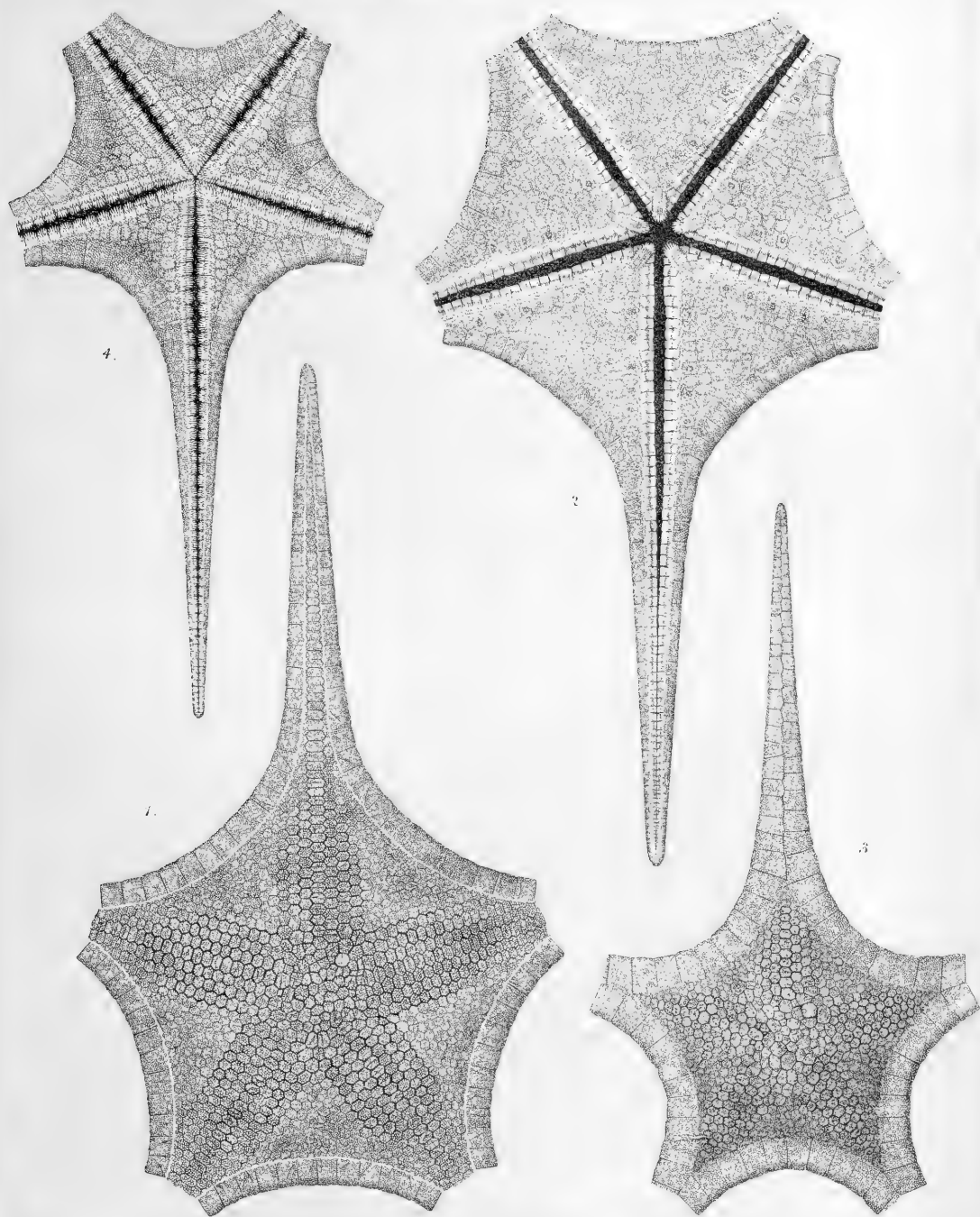
[For magnified details of this species see Pl. LIII. figs. 7, 8.]

Figs. 3, 4. <i>NYPHASTER PROTENTUS</i> , n. sp.	303
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Fig. 3. Abactinal aspect ; magnified $1\frac{1}{2}$ diameters. •

Fig. 4. Actinal aspect ; magnified $1\frac{1}{2}$ diameters.

[For magnified details of this species see Pl. LIII. figs. 9, 10.]



W. H. Goeweler del. D. Dieck lith.

Hanhart 1005

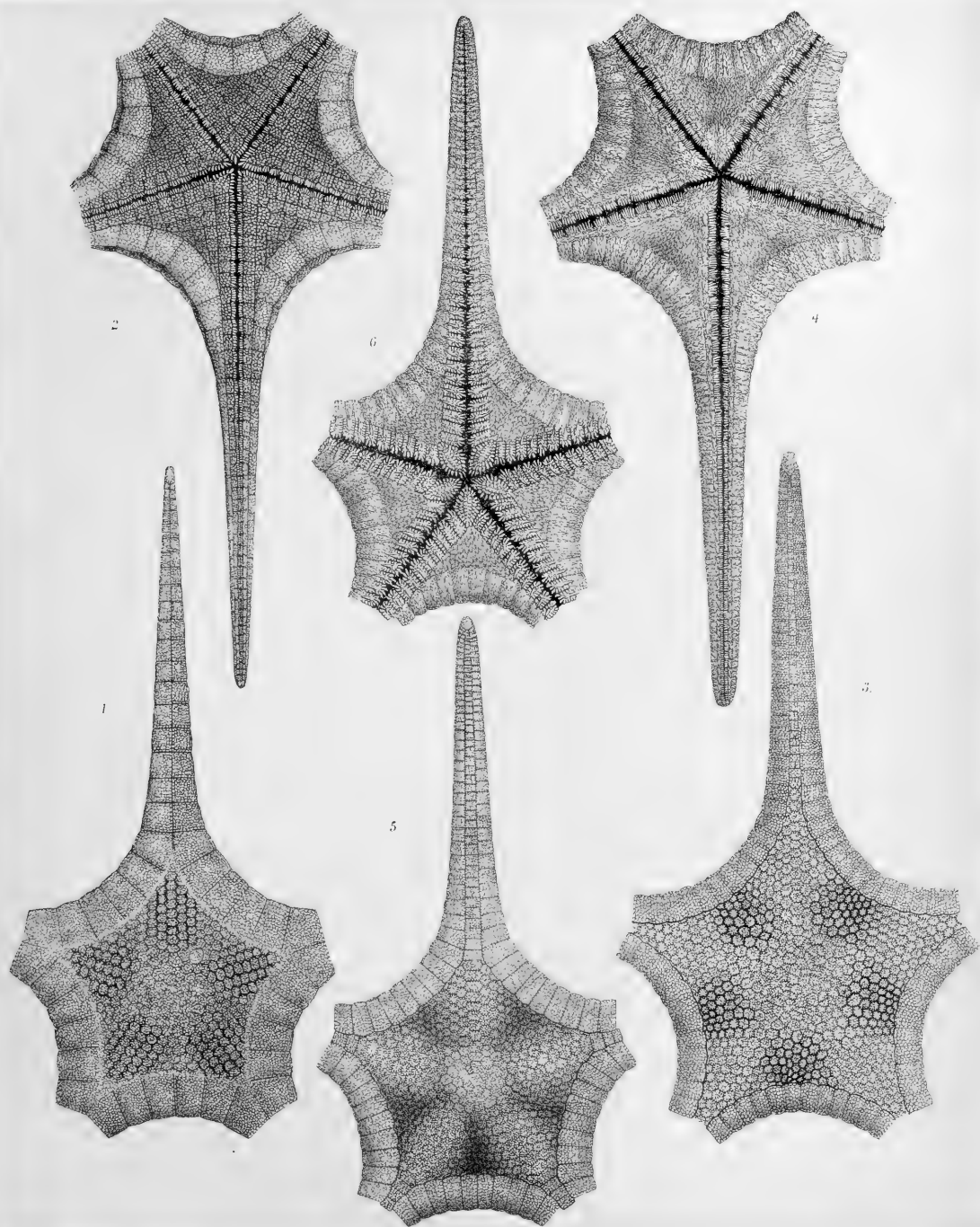
1-2. NYMPHASTER SYMBOLICUS, n. sp.

3-4. NYMPHASTER PROTENTUS, n. sp.

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Fig. 1. Abactinal aspect ; magnified 2 diameters.	
Fig. 2. Actinal aspect ; magnified 2 diameters.	
[For magnified details of this species see Pl. LIII. figs. 5, 6.]	
Figs. 3, 4. <i>PARAGONASTER CYLINDRATUS</i> , n. sp.	314
Fig. 3. Abactinal aspect ; magnified 2 diameters.	
Fig. 4. Actinal aspect ; magnified 2 diameters.	
[For magnified details of this species see Pl. LIII. figs. 3, 4.]	
Figs. 5, 6. <i>PARAGONASTER CTENIPES</i> , n. sp.	311
Fig. 5. Abactinal aspect ; magnified 2 diameters.	
Fig. 6. Actinal aspect ; magnified 2 diameters.	
[For magnified details of this species see Pl. LIII. figs. 1, 2.]	



W. H. Crother del.

Modern Press. lith.

1-2. *NYMPHASTER ALBIDUS*, n. sp.

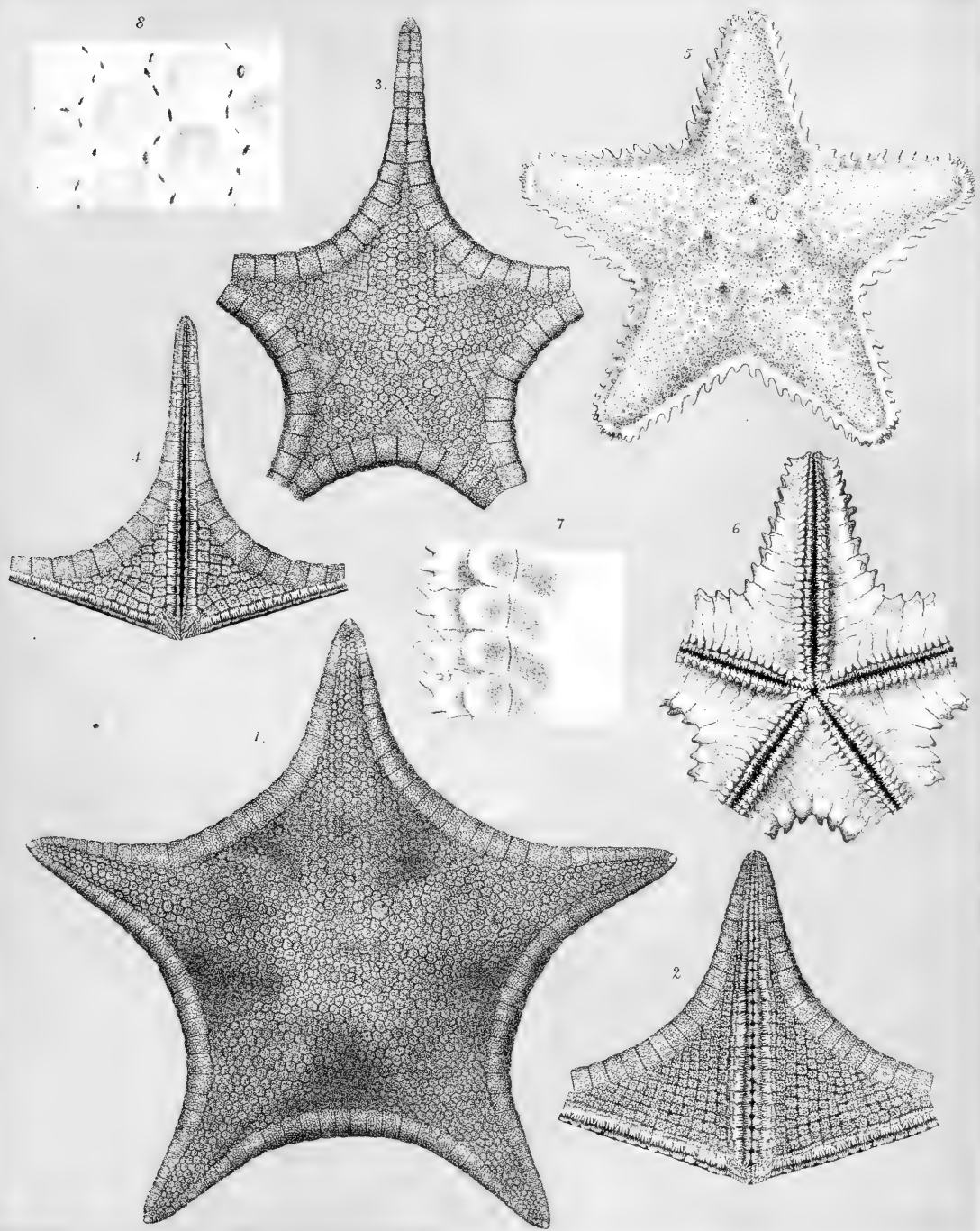
3-4. *PARAGONASTER CYLINDRATUS*, n. sp.

5-6. *PARAGONASTER CTENIPES*, n. sp.

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PLATE LII.

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Fig. 1.	Abactinal aspect ; magnified $1\frac{1}{2}$ diameters.	
Fig. 2.	Actinal aspect ; magnified $1\frac{1}{2}$ diameters.	
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Fig. 8.	A portion of the abactinal surface of the same ; magnified 10 diameters.	



1-2. *PENTAGONASTER ARGUATUS*, n. sp.

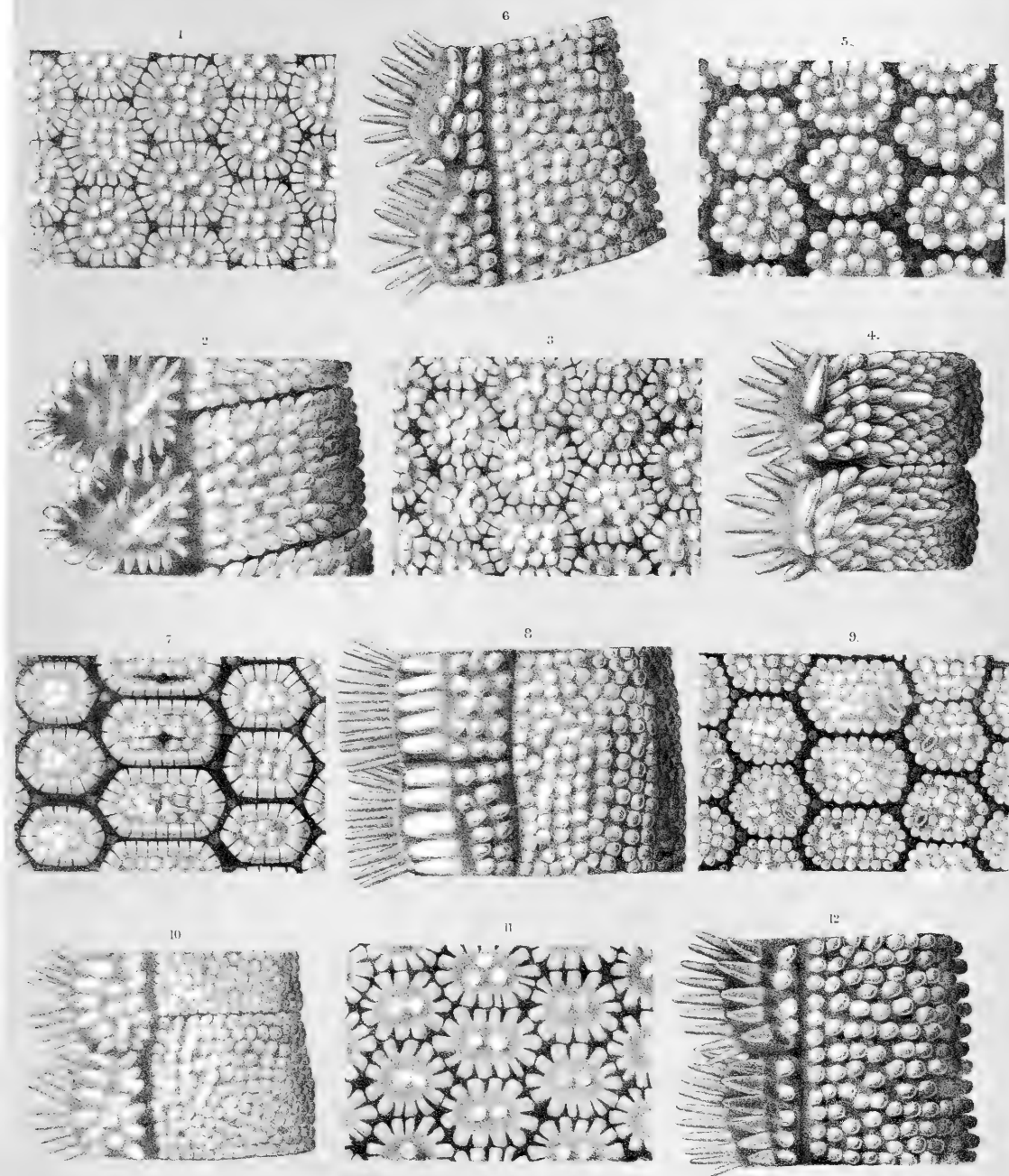
3-4. *NYMPHASTER BIPUNCTUS*, n. sp.

5-8. *GYMNASTERIA CARINIFERA* (Lamarek) V. Martens (juv).

PLATE LIII.

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Figs. 1, 2. <i>PARAGONASTER CTENIPES</i> , n. sp.	311
Fig. 1. A portion of the abactinal surface ; magnified 15 diameters.	
Fig. 2. Adambulacral and infero-marginal plates ; magnified 15 diameters.	
[For macroscopic figures of this species see Pl. LI. figs. 5, 6.]	
Figs. 3, 4. <i>PARAGONASTER CYLINDRATUS</i> , n. sp.	314
Fig. 3. A portion of the abactinal surface ; magnified 12 diameters.	
Fig. 4. Adambulacral and infero-marginal plates ; magnified 15 diameters.	
[For macroscopic figures of this species see Pl. LI. figs. 3, 4.]	
Figs. 5, 6. <i>NYMPHASTER ALBIDUS</i> , n. sp.	306
Fig. 5. A portion of the abactinal surface ; magnified 20 diameters.	
Fig. 6. Adambulacral and infero-marginal plates ; magnified 15 diameters.	
[For macroscopic figures of this species see Pl. LI. figs. 1, 2.]	
Figs. 7, 8. <i>NYMPHASTER SYMBOLICUS</i> , n. sp.	297
Fig. 7. A portion of the abactinal surface ; magnified 10 diameters.	
Fig. 8. Adambulacral and infero-marginal plates ; magnified 15 diameters.	
[For macroscopic figures of this species see Pl. L. figs. 1, 2.]	
Figs. 9, 10. <i>NYMPHASTER PROTENTUS</i> , n. sp.	303
Fig. 9. A portion of the abactinal surface ; magnified 12 diameters.	
Fig. 10. Adambulacral and infero-marginal plates ; magnified 12 diameters.	
[For macroscopic figures of this species see Pl. L. figs. 3, 4.]	
Figs. 11, 12. <i>NYMPHASTER BIPUNCTUS</i> , n. sp.	301
Fig. 11. A portion of the abactinal surface ; magnified 15 diameters.	
Fig. 12. Adambulacral and infero-marginal plates ; magnified 20 diameters.	
[For macroscopic figures of this species see Pl. LII. figs. 3, 4.]	



by H. C. G. S. and del. et lith.

Musée. Paris. sp.

1-2. *PARAGONASTER CTENIPES*, n. sp.

3-4. *PARAGONASTER CYLINDRICUS*, n. sp.

9-10. *NYMPHASTER PROTENTUS*, n. sp.

5-6. *NYMPHASTER ALBIDUS*, n. sp.

7-8. *NYMPHASTER SYMBOLICUS*, n. sp.

11-12. *NYMPHASTER BIPUNCTUS*, n. sp.

PLATE LIV.

PLATE LIV.

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Fig. 1. Abactinal aspect; magnified $1\frac{1}{2}$ diameters.

Fig. 2. Actinal aspect; magnified $1\frac{1}{2}$ diameters.

Fig. 3. A portion of the abactinal surface; magnified 15 diameters.

Fig. 4. Adambulacral plates and adjacent portion of the actinal surface; magnified 8 diameters.

Fig. 5. The extremity of a ray; magnified.

Fig. 6. One of the pincer-shaped pedicellariæ on the abactinal surface, seen in profile; magnified.

Fig. 7. One of the tubercle-like valvate pedicellariæ on the plates adjacent to the adambulacral plates, seen in profile; magnified.

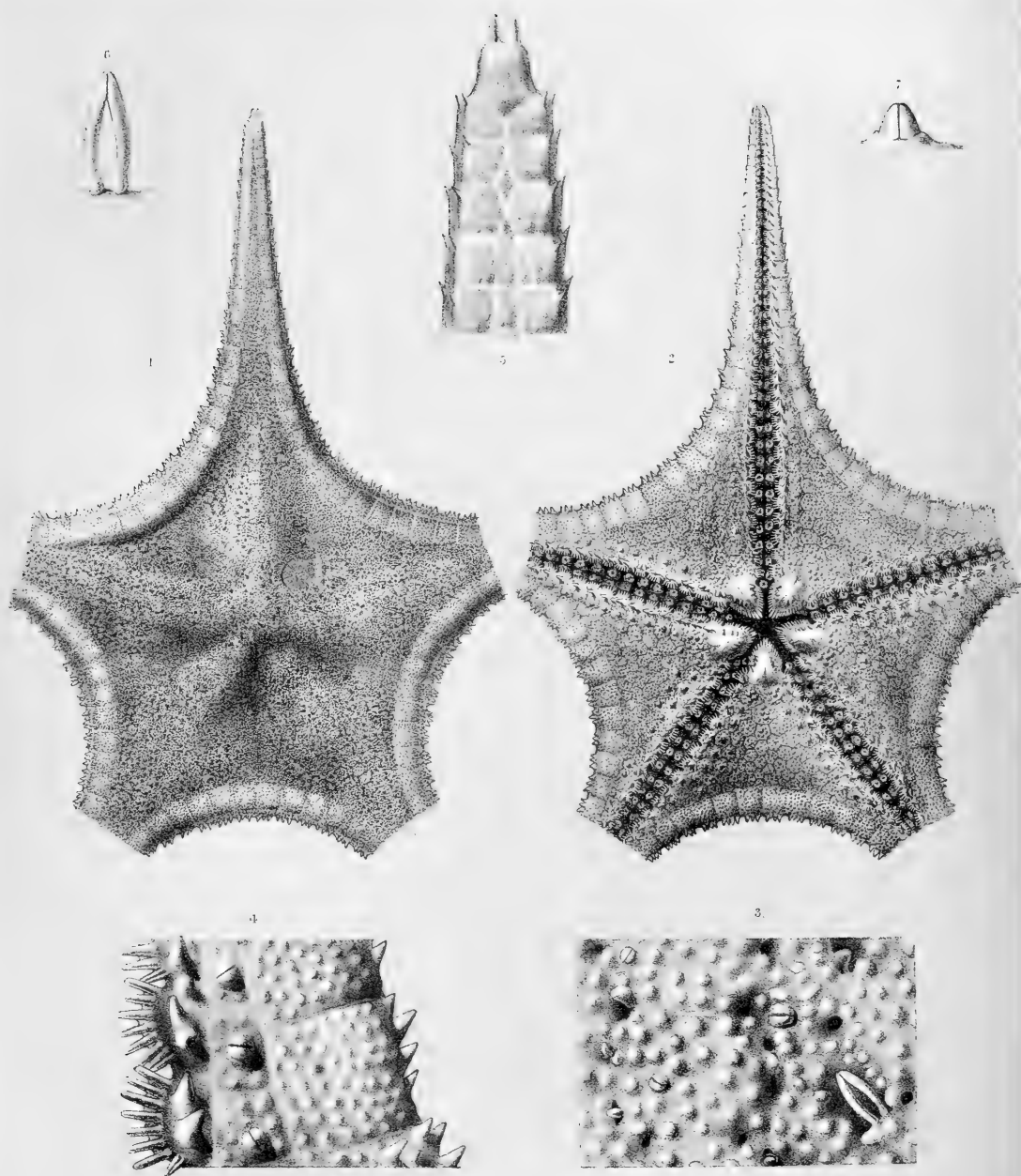
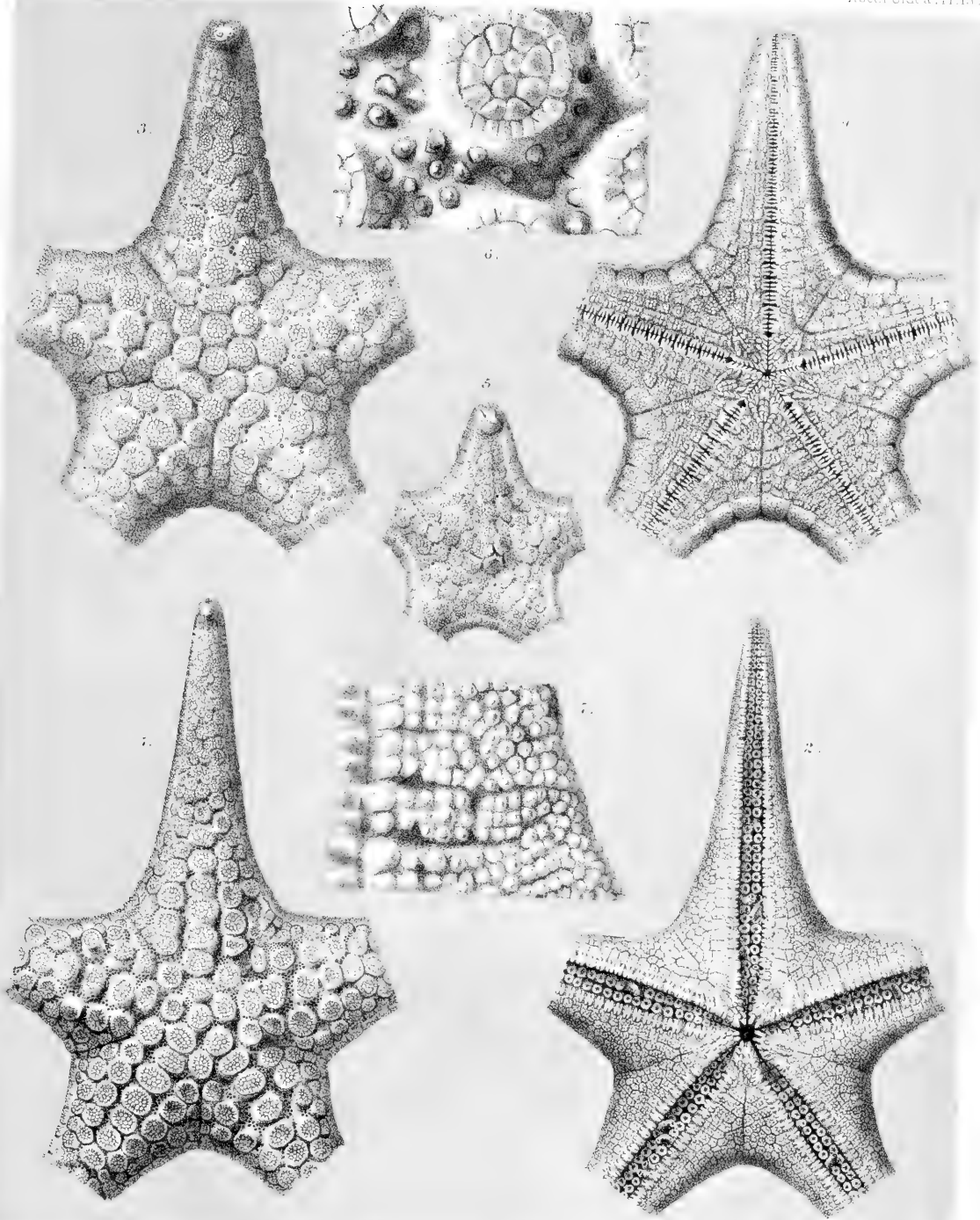


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PLATE LV.

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Figs. 1-7. <i>NECTRIA OCELLIFERA</i> (Lamarck), Gray,	319
Fig. 1. Abactinal aspect ; magnified $1\frac{1}{2}$ diameters.	
Fig. 2. Actinal aspect ; magnified $1\frac{1}{2}$ diameters.	
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Fig. 5. Abactinal aspect of a young example ; magnified 3 diameters.	
Fig. 6. A portion of the abactinal surface of the adult ; magnified 9 diameters.	
Fig. 7. Adambulacral plates and adjacent portion of the actinal surface ; magnified 9 diameters.	



T.H. McMichael del. H. Schuch lith.

NECTRIA OCELLIFERA (Lamarck), Gray

Pl. IV.

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PLATE LVI.

Figs. 1-4. <i>CALLIASTER BACCATUS</i> , n. sp.	Page 280
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Fig. 1. Actinal aspect, magnified $1\frac{1}{2}$ diameters.

Fig. 2. Abactinal aspect, magnified $1\frac{1}{2}$ diameters.

Fig. 3. Adambulacral plates and adjacent portion of the actinal surface ; magnified
12 diameters.

Fig. 4. A portion of the abactinal surface ; magnified 12 diameters.

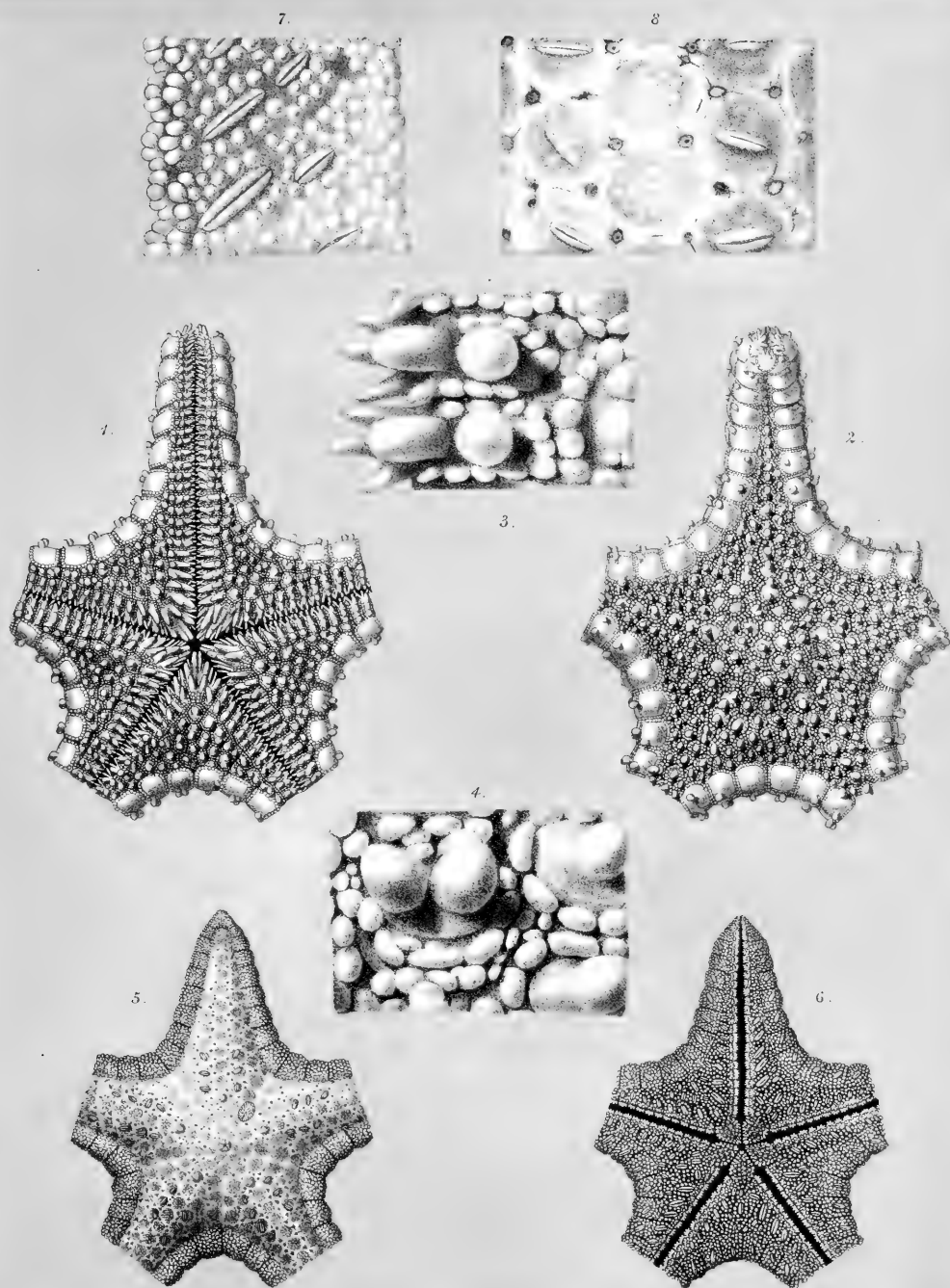
Figs. 5-8. <i>ANTHENA TUBERCULOSA</i> , Gray (?), . . .	340
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Fig. 5. Abactinal aspect of a young example ; magnified 3 diameters.

Fig. 6. Actinal aspect of a young example ; magnified 3 diameters.

Fig. 7. Adambulacral plates and adjacent portion of the actinal surface ; magnified
20 diameters.

Fig. 8. A portion of the abactinal surface ; magnified 15 diameters.



del Hübner del.

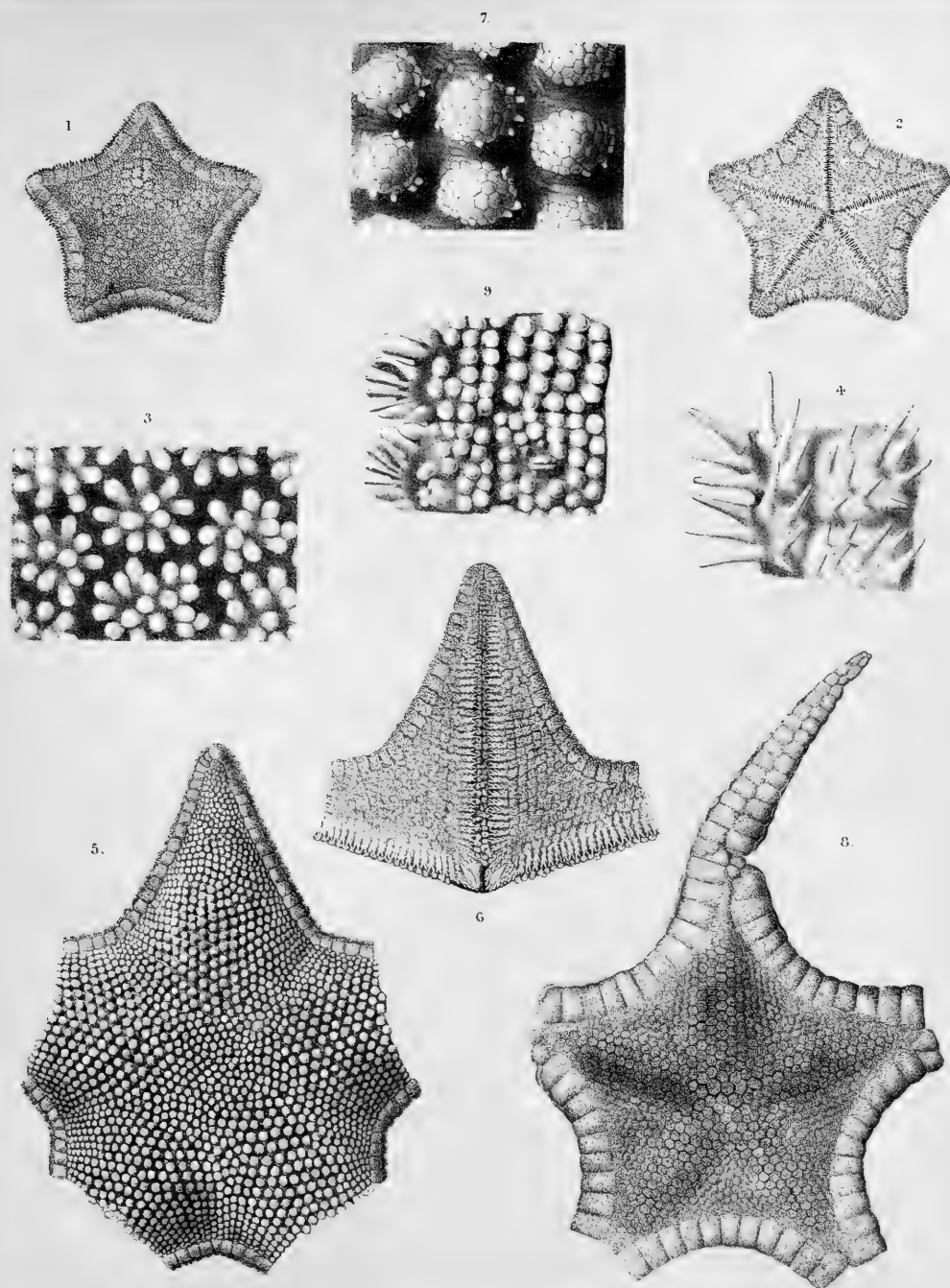
1-4. *CALLIASTER BACCATUS* n. sp.

5-8. *ANTHENA TUBERCULOSA* Gray, 2, juv.

PLATE LVII.

PLATE LVII.

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Figs. 1-4. PENTAGONASTER LEPIDUS, n. sp.	275
Fig. 1. Abactinal aspect; magnified 3 diameters.	
Fig. 2. Actinal aspect; magnified 3 diameters.	
Fig. 3. A portion of the abactinal surface; magnified 25 diameters.	
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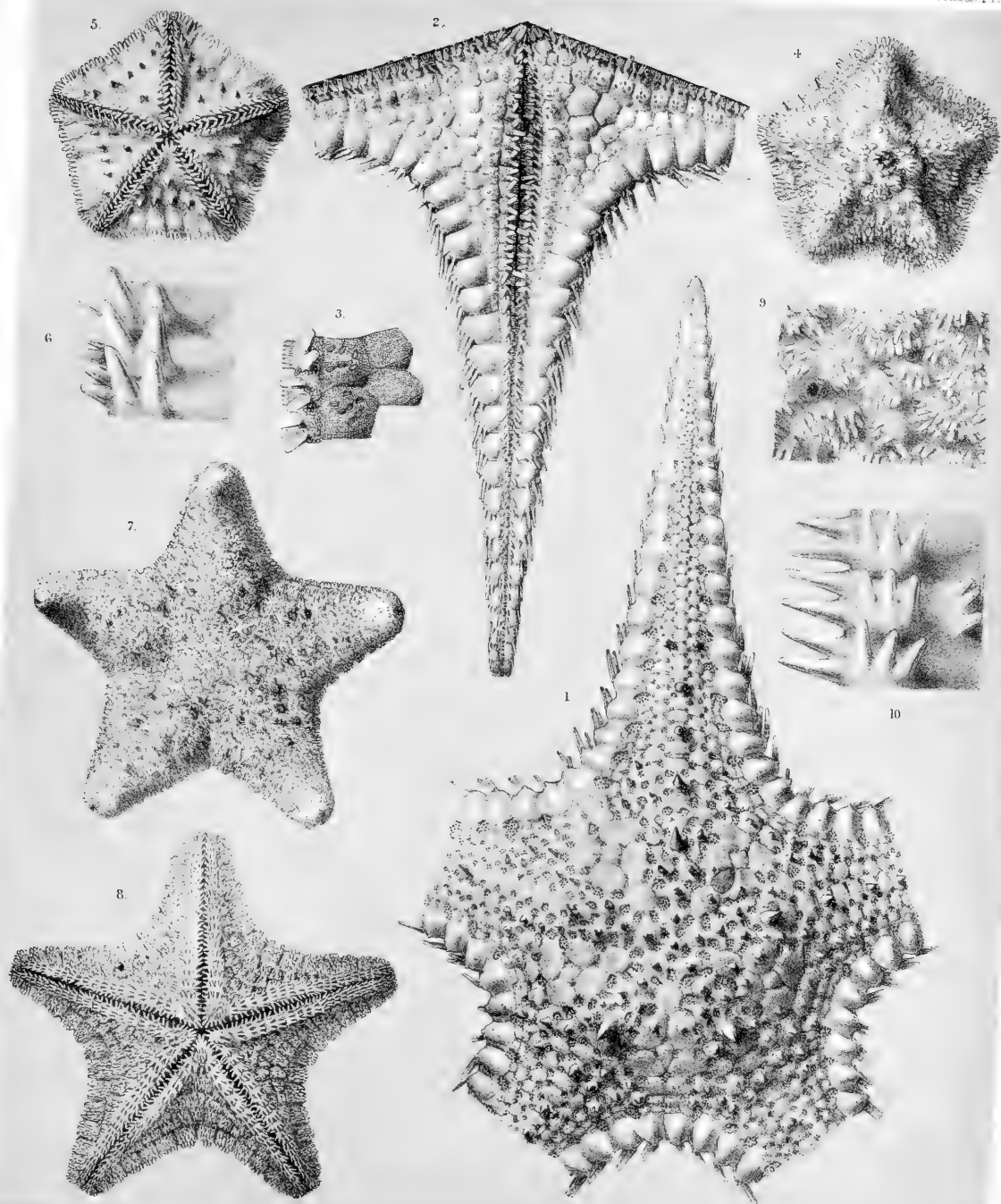


1-4. *PENTAGONASTER LEPIDUS*, n.sp. 5-7. *GNATHASTER PILULATUS*, n.sp.
8-9. *NYMPHASTER BASILICUS*, n.sp.

PLATE LVIII.

PLATE LVIII.

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Fig. 3.	Adambulacral plates and adjacent portion of the actinal surface; magnified.	
Figs. 4-6.	MARGINASTER FIMBRIATUS, n. sp.	365
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Fig. 6.	Adambulacral plates and adjacent portion of the actinal surface; magnified 24 diameters.	
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Fig. 7.	Abactinal aspect; magnified 4 diameters.	
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Fig. 9.	A portion of the abactinal surface; magnified 15 diameters.	
Fig. 10.	Adambulacral plates and adjacent portion of the actinal surface; magnified 20 diameters.	



1-3. STELLASTER PRINCEPS, n.sp.

4-6. MARGINASTER FIMBRIATUS, n.sp.

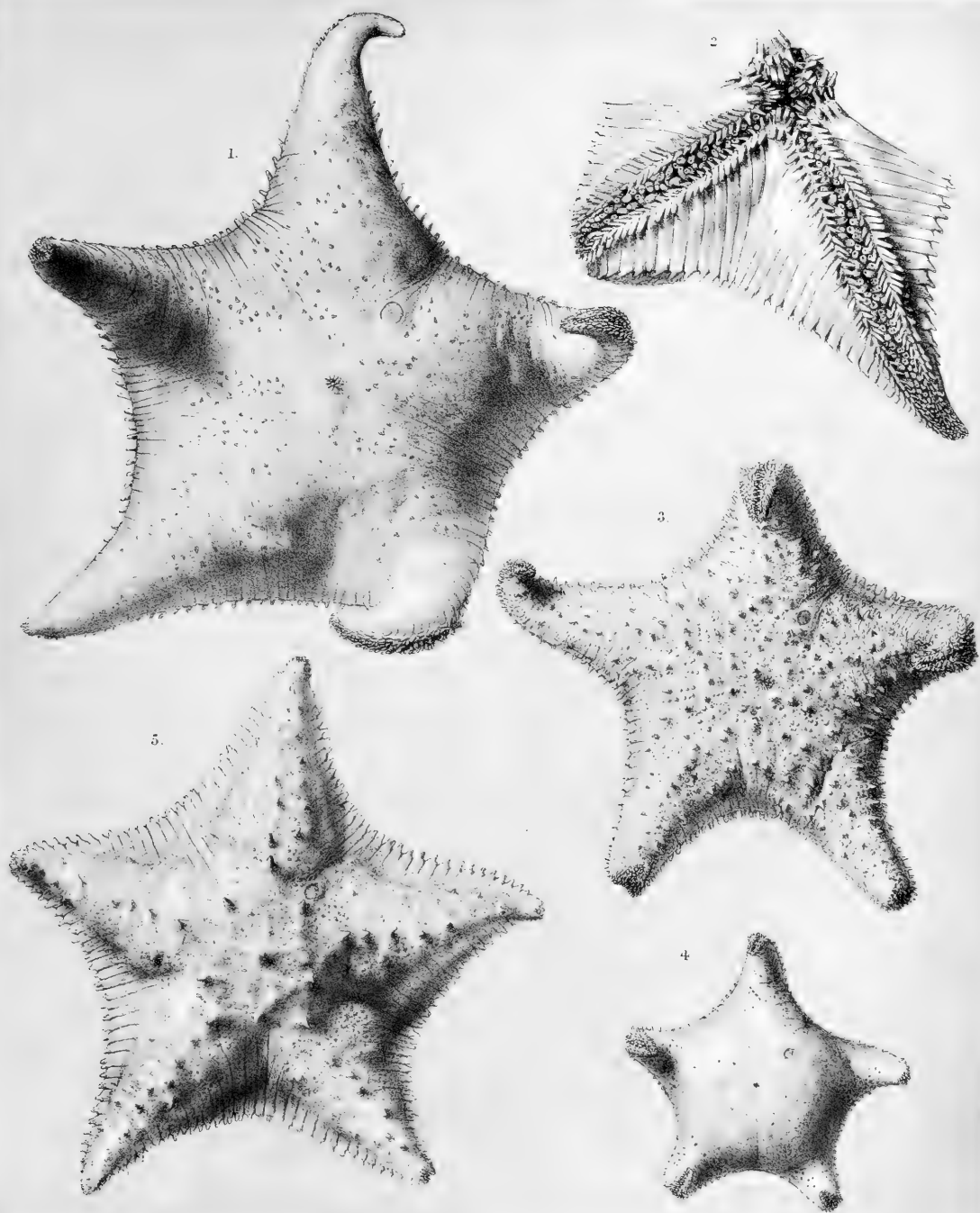
7-10. LASIASTER VILLOSUS, n.sp.

Mintern Bros. imp.

PLATE LIX.

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Martern. Proc. imp.

1-2. *PORANIA GLABER*, n.sp.
4. *PORANIA SPICULATA*, n.sp.

3. *PORANIA ANTARCTICA*, Smith.
5. *PORANIA MAGELLANICA*, Studer.

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PLATE LX.

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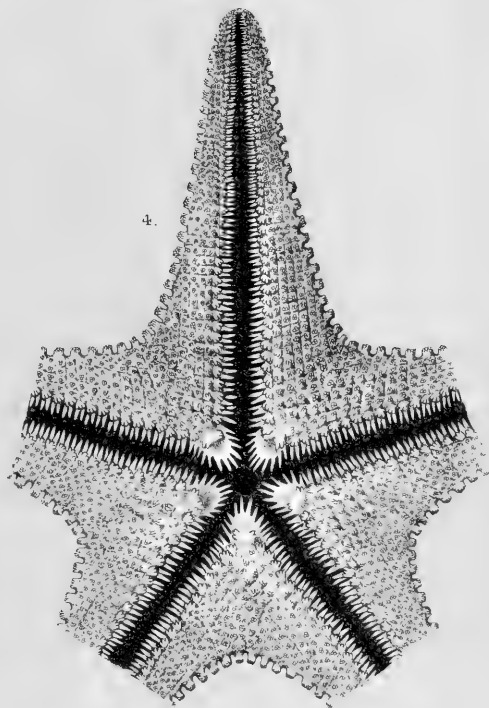
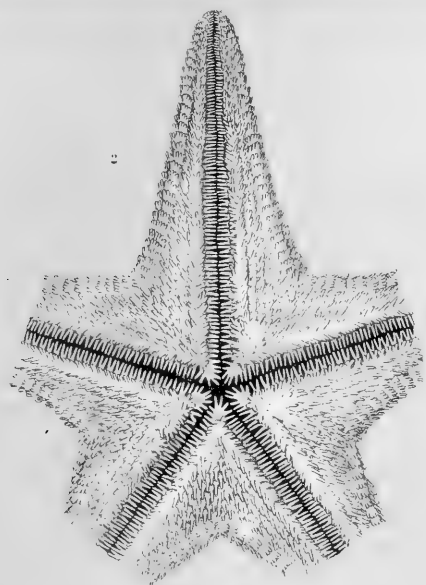
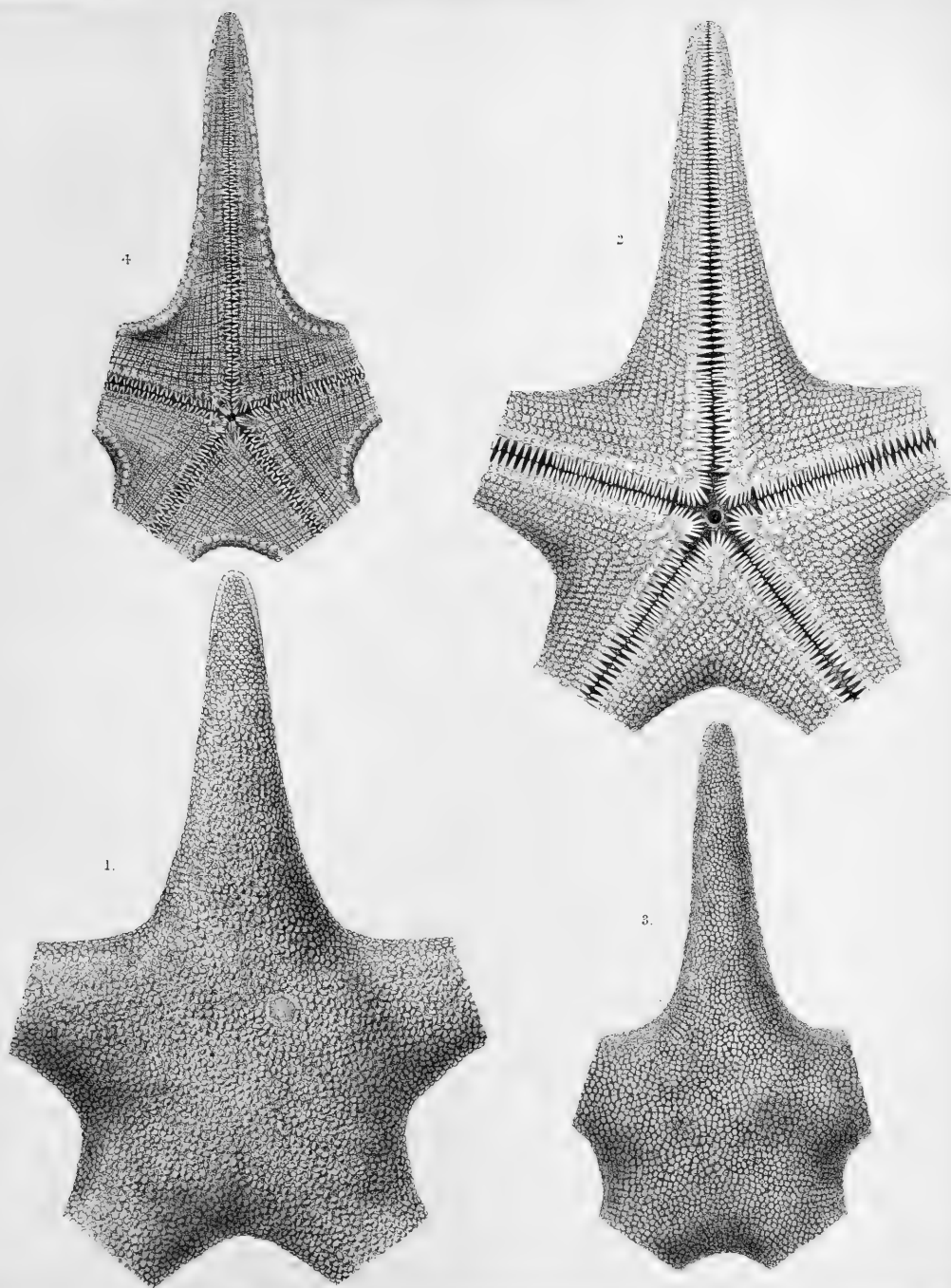


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W. H. Cressler del. et lith.

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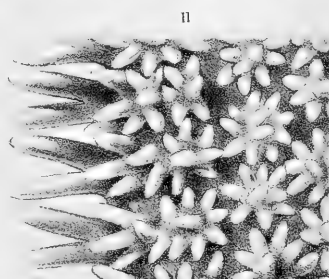
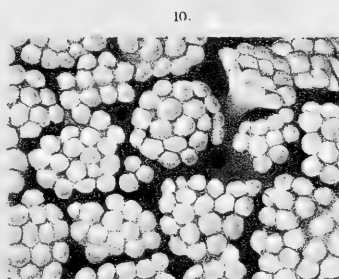
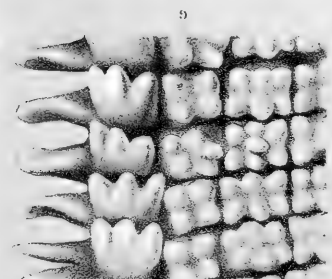
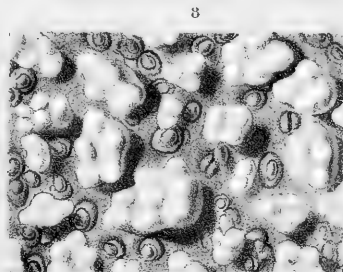
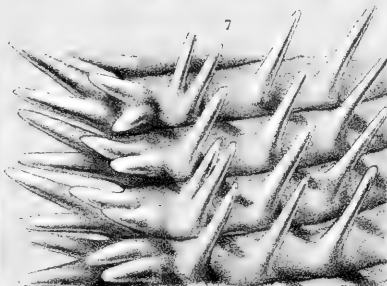
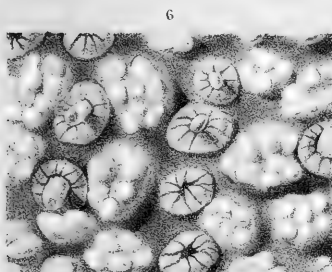
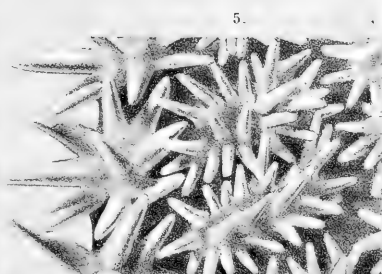
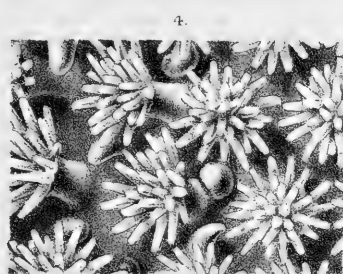
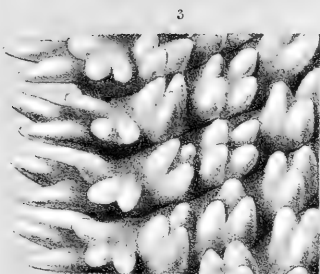
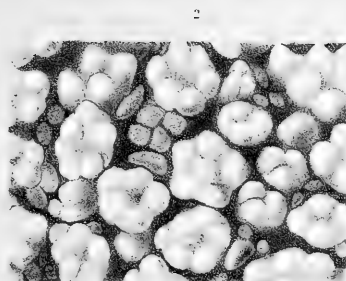
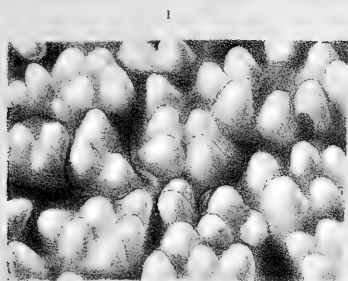
1-2. *CYCETHRA PINGUIS*, n.sp.

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1. PERKMASTER FUSCUS, n. sp.
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8-9. CYCETHRA PINGUIS, n. sp.

2-3. CYCETHRA ELECTILIS, n. sp.
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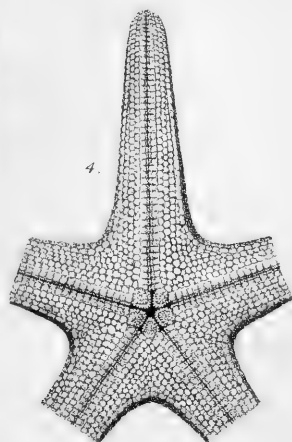
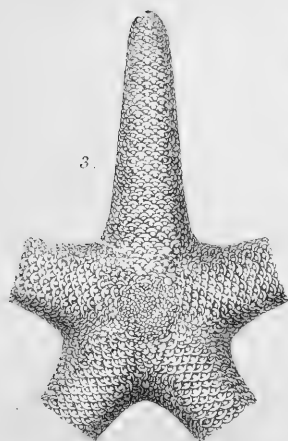
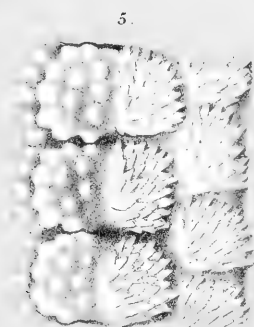
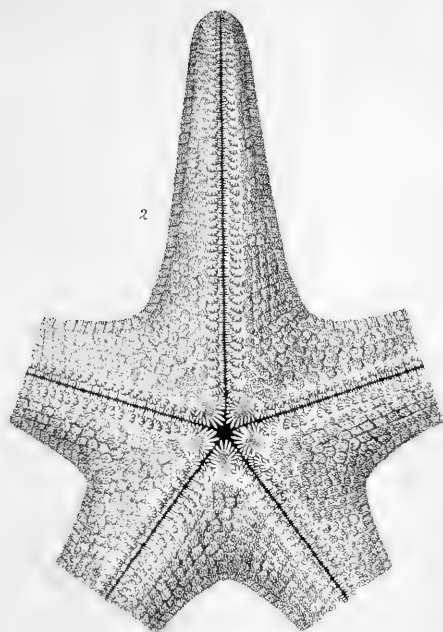
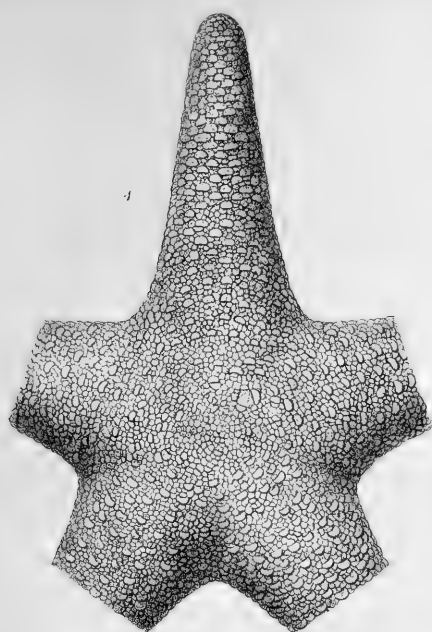
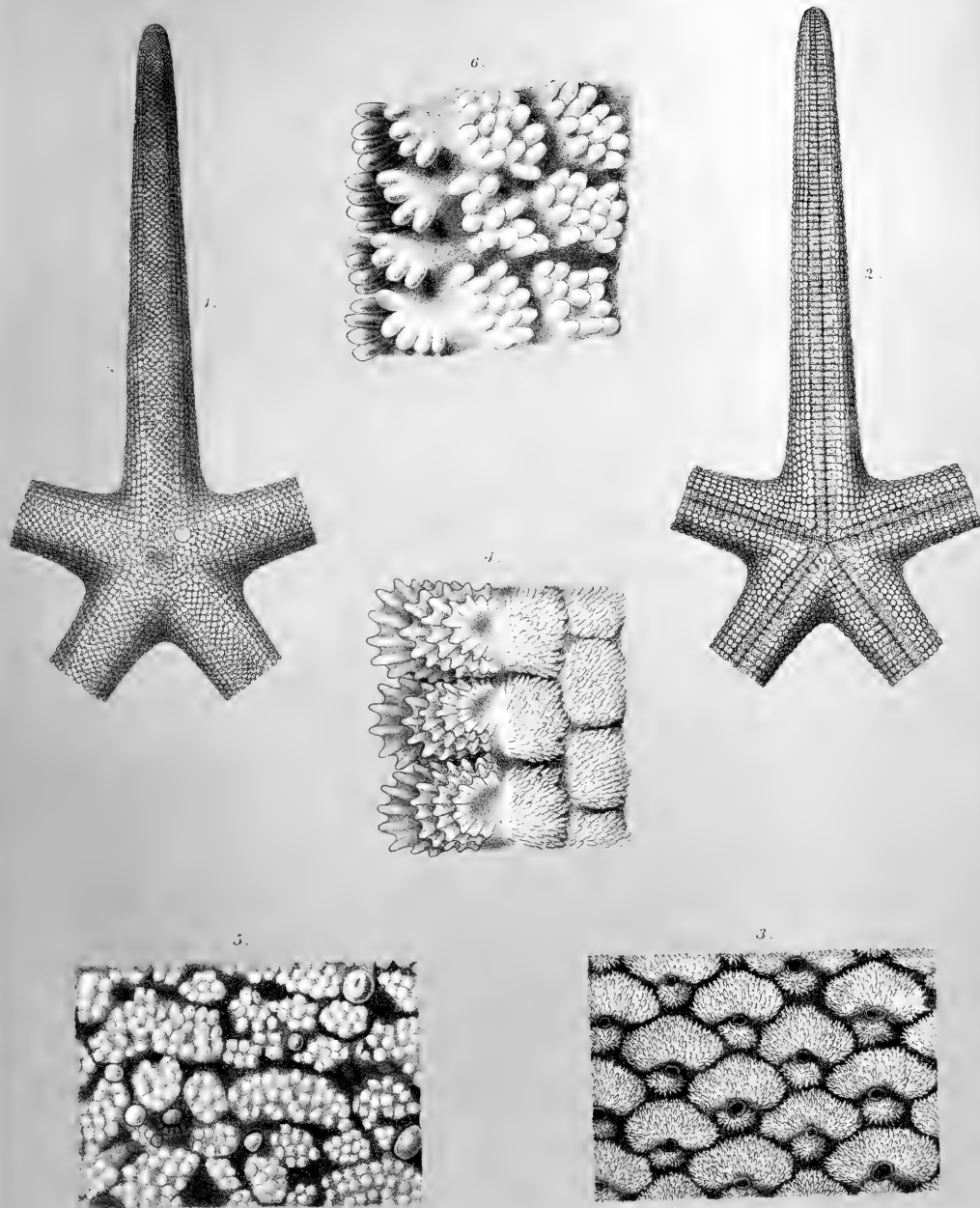


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W.H. Crowther del. Hollick lith.

Hanhart sculp.

1-4. *NEPANTHIA MACULATA*, Gray.

5-6. *PATIRIA BELLULA*, n.sp.

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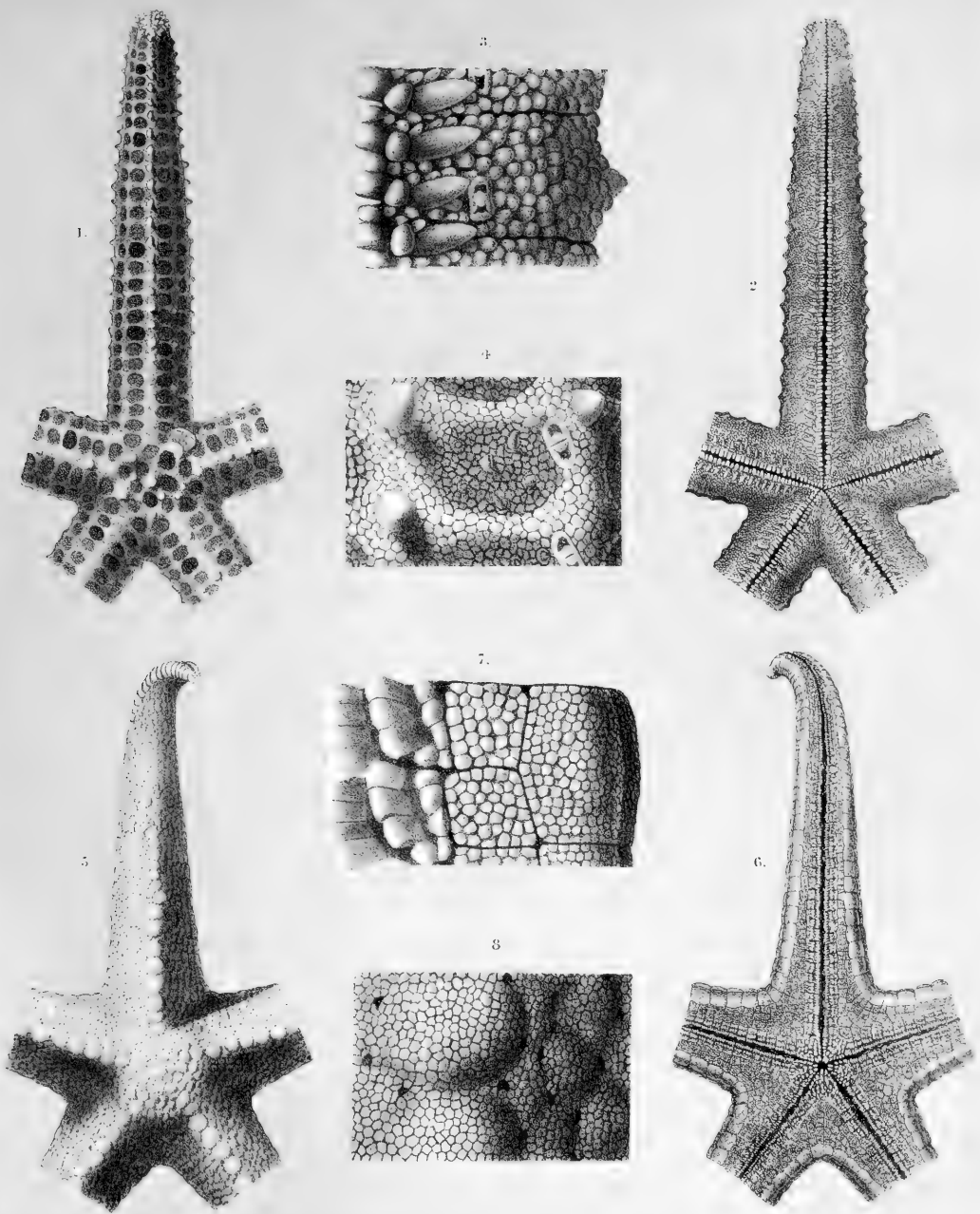
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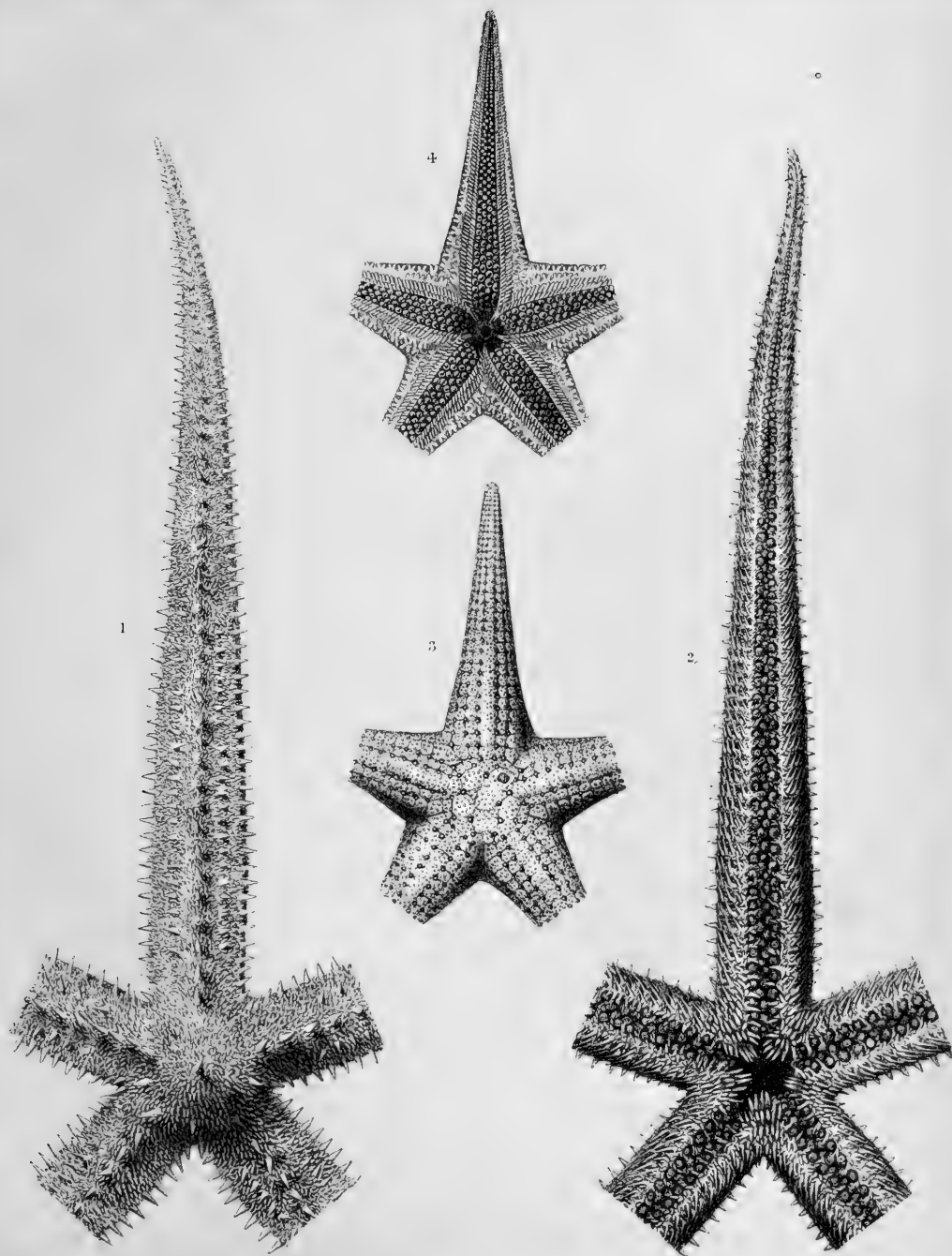
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[For magnified details of this species see Pl. LXVIII. figs. 9, 10.]



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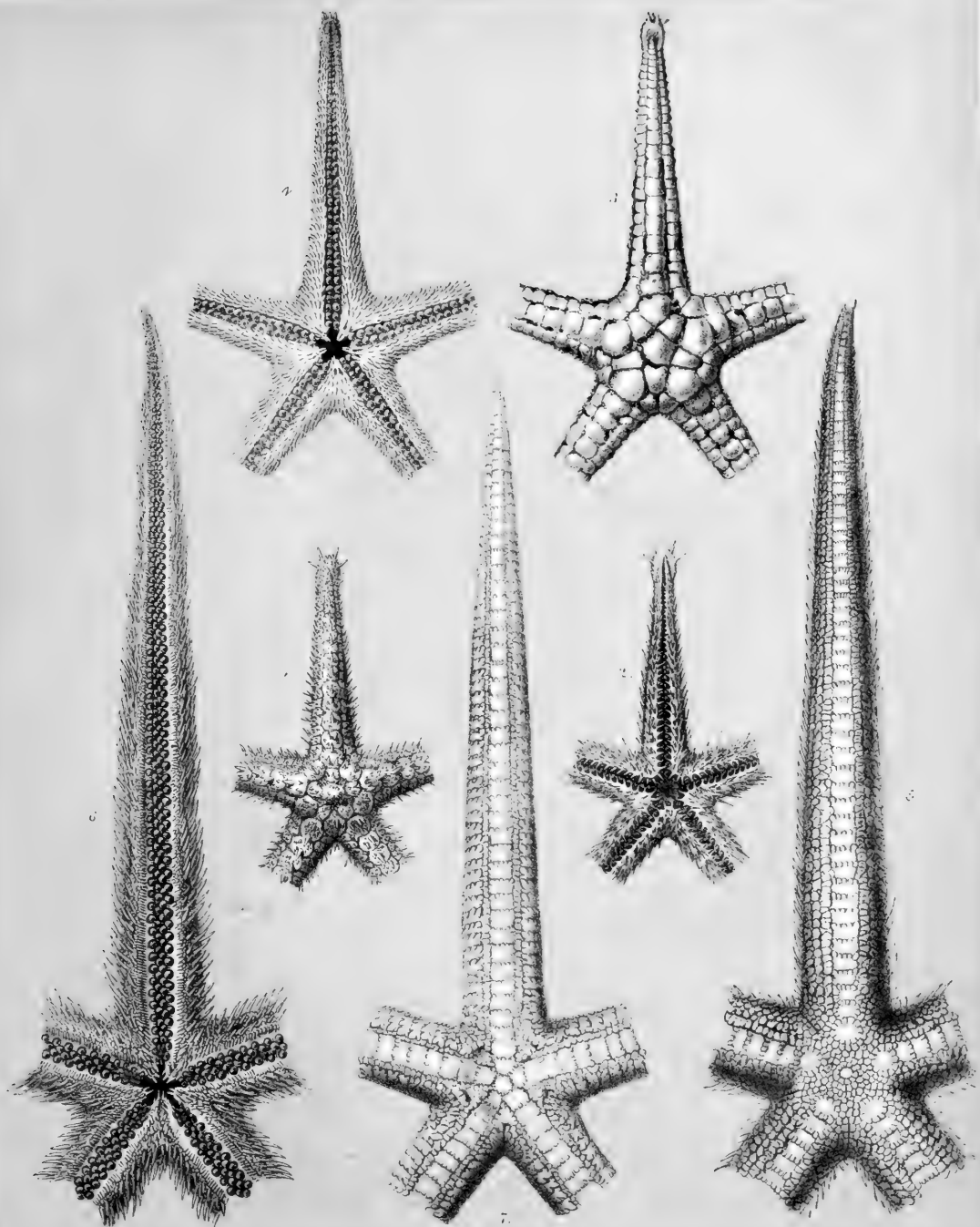
1-2. ZOROASTER FULGENS, Wyville Thomson.

3-4. NEOMORPHASTER EUSTICHUS, n. sp.

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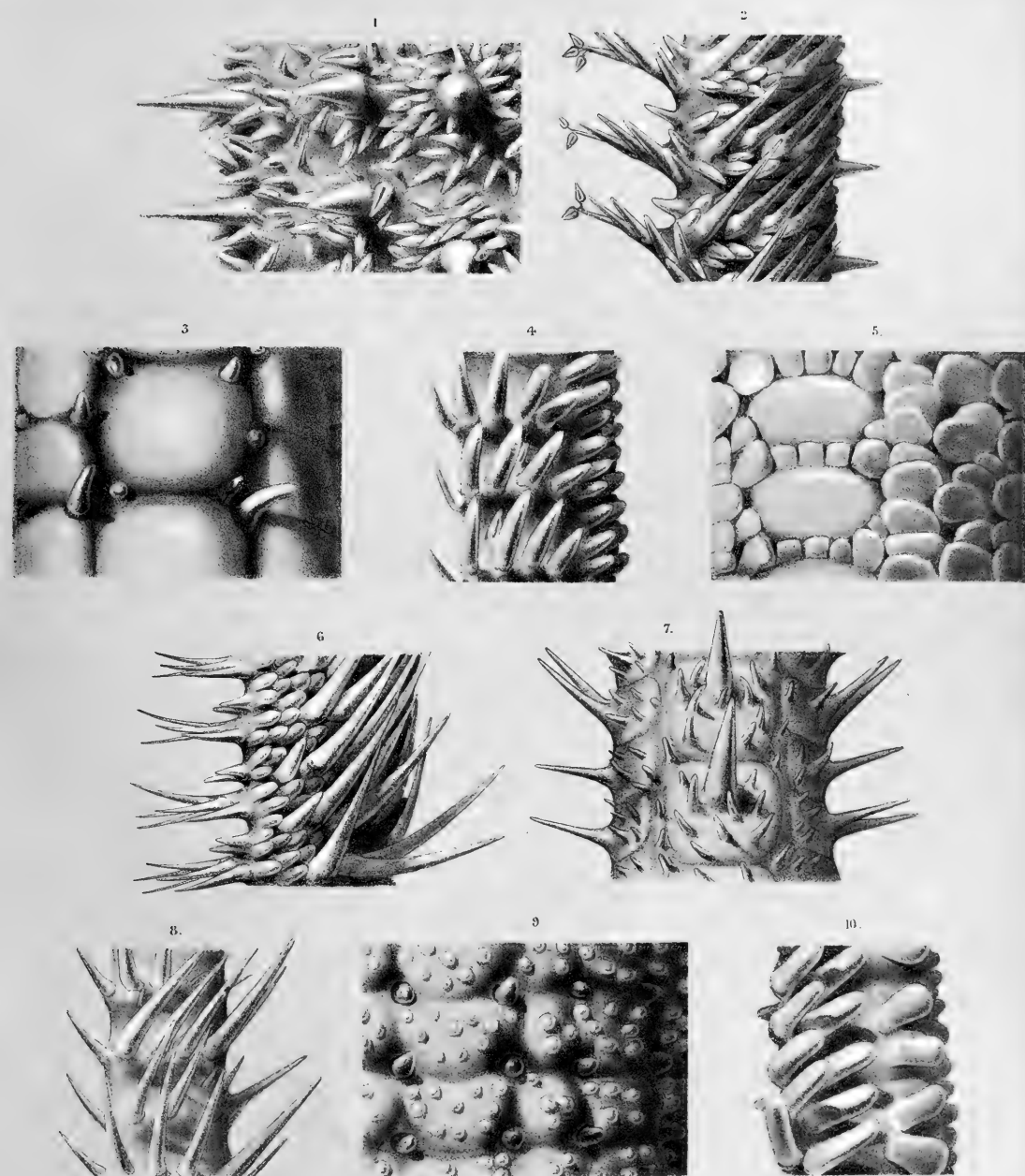
1-2. ZOROASTER TENUIS, n.sp
5-6. PHOLIDASTER SQUAMATUS, n.sp

3-4. CNEMIDASTER WYVILLII, n.sp
7. PHOLIDASTER DISTINCTUS, n.sp

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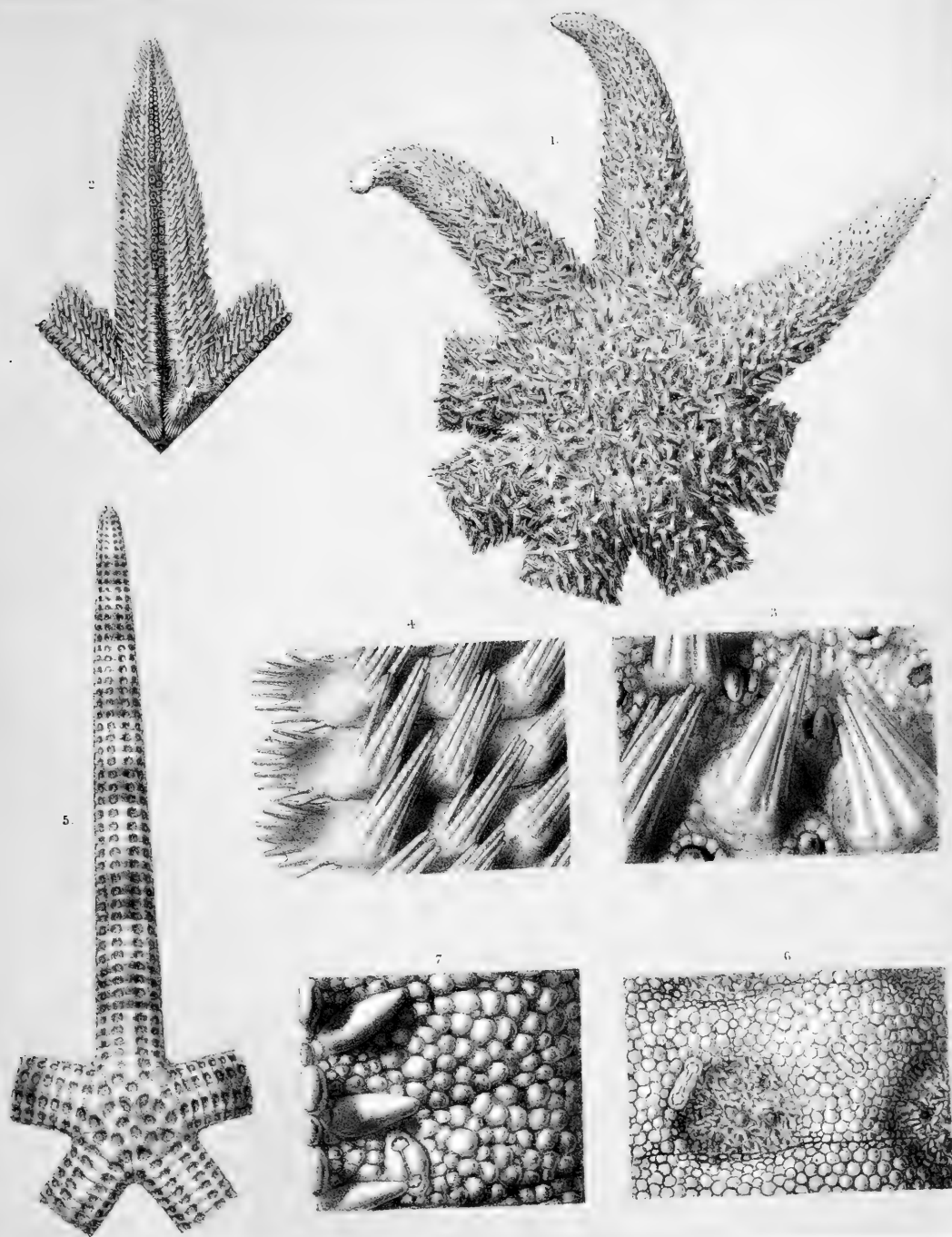


1-2. ZOROASTER FULGENS, Wyville Thomson. 3-4. CNEMIDASTER WYVILLII, n. sp.
 5-6. PHOLIDASTER SQUAMATUS, n. sp. 7-8. ZOROASTER TENUIS, n. sp.
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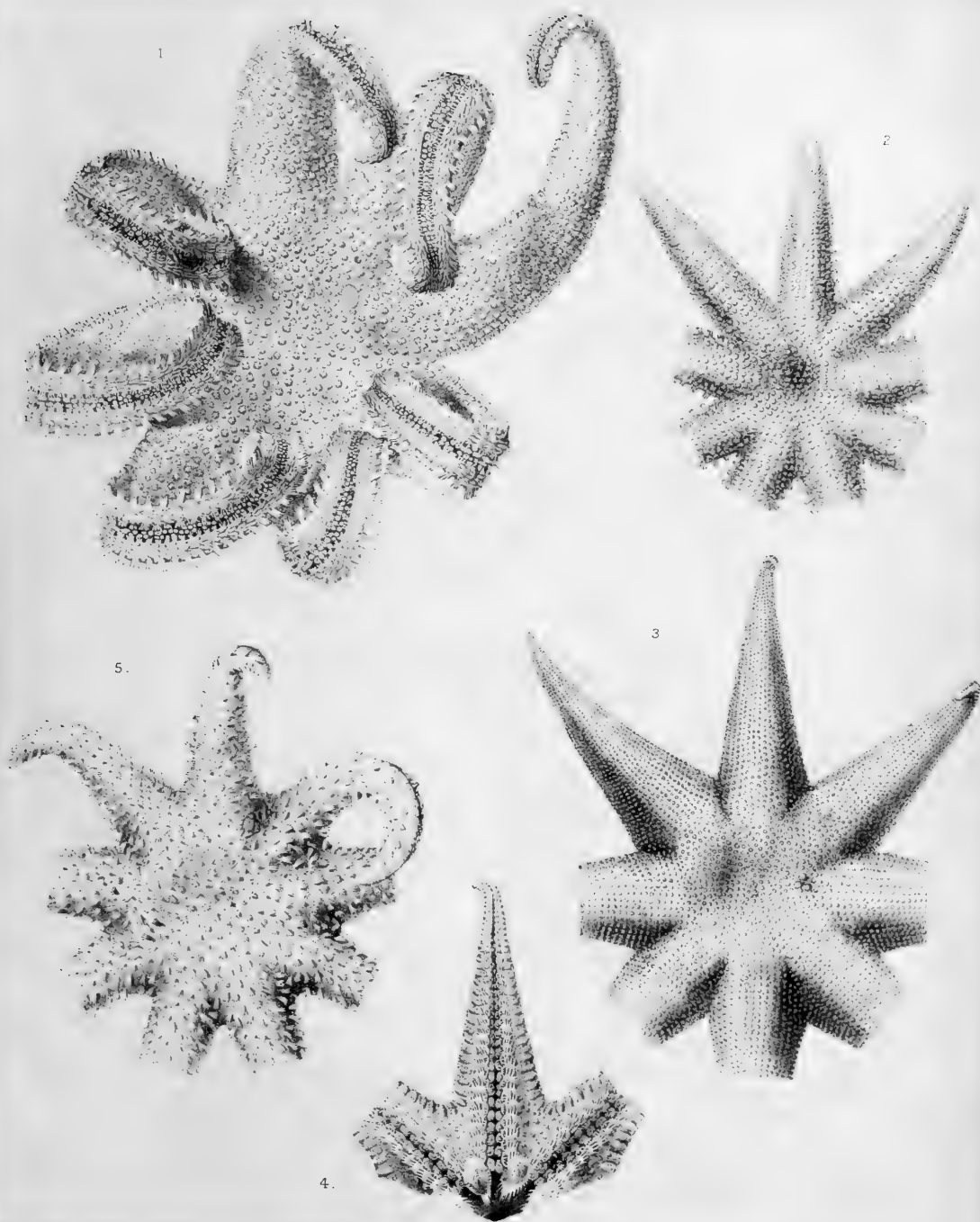
1-4. RHIPIDASTER VANNIPES, n. sp.

5-7. OPHIDIASTER HELICOSTICHUS, n. sp.

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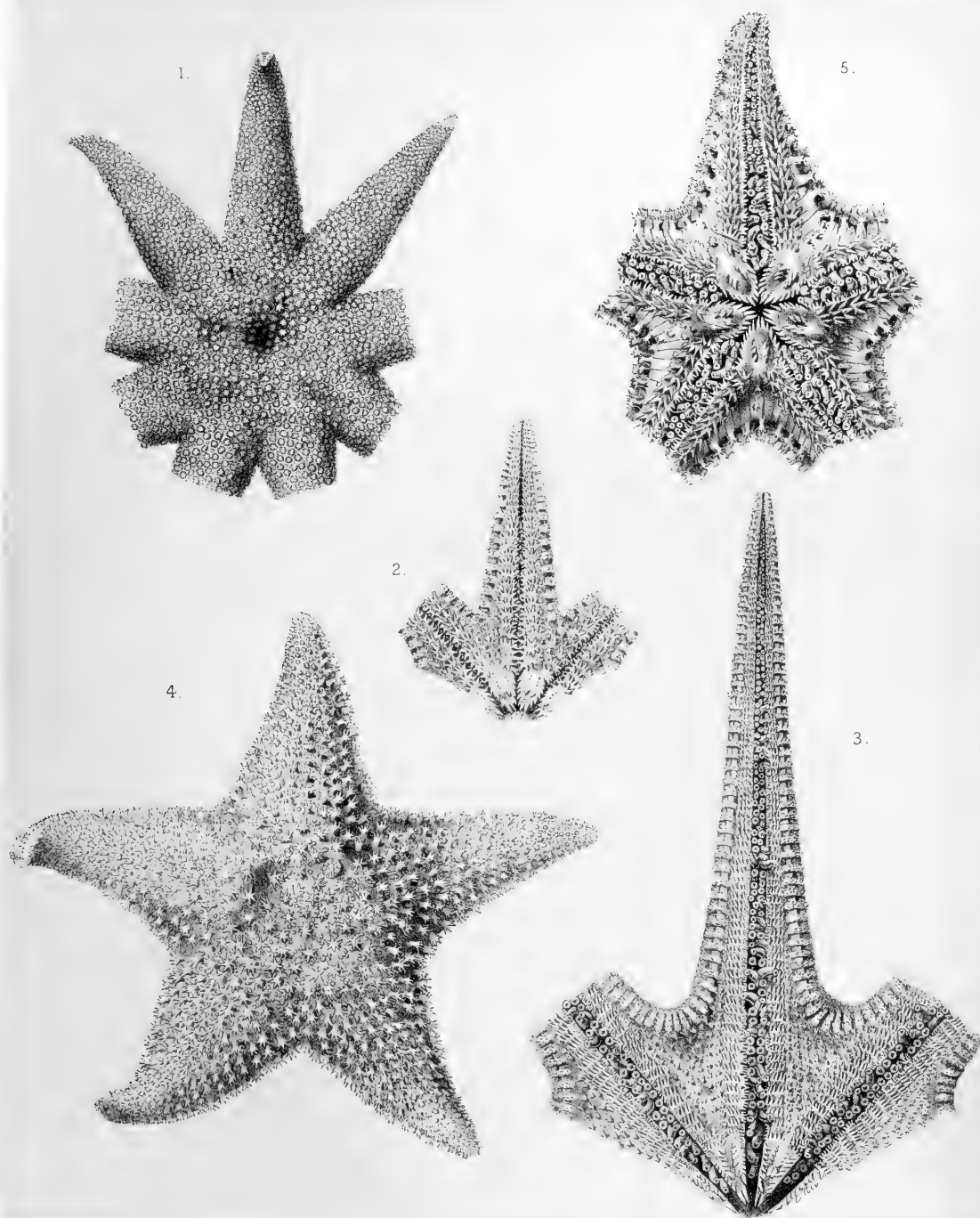
1. *SOLASTER REGULARIS*, n. sp.
3-4. *SOLASTER TORULATUS*, n. sp.

2. *SOLASTER SUBARCUATUS*, n. sp.
5. *CROSSASTER PENICILLATUS*, n. sp.

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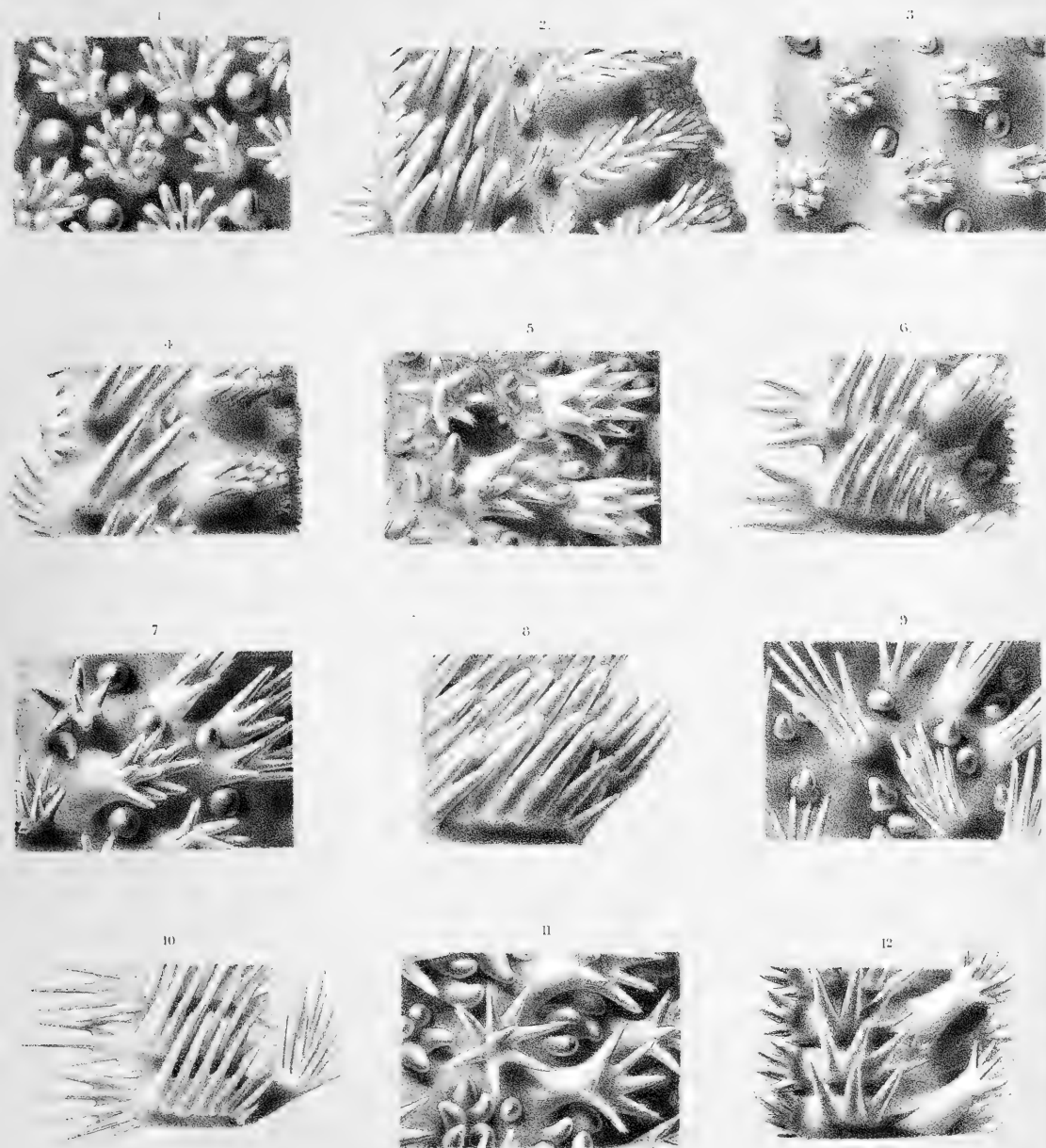
1-3. SOLASTER PAXILLATUS, n. sp.

4-5. LOPHASTER STELLANS, n. sp.

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[For macroscopic figures of this species see Pl. LXXI. figs. 4, 5.]	



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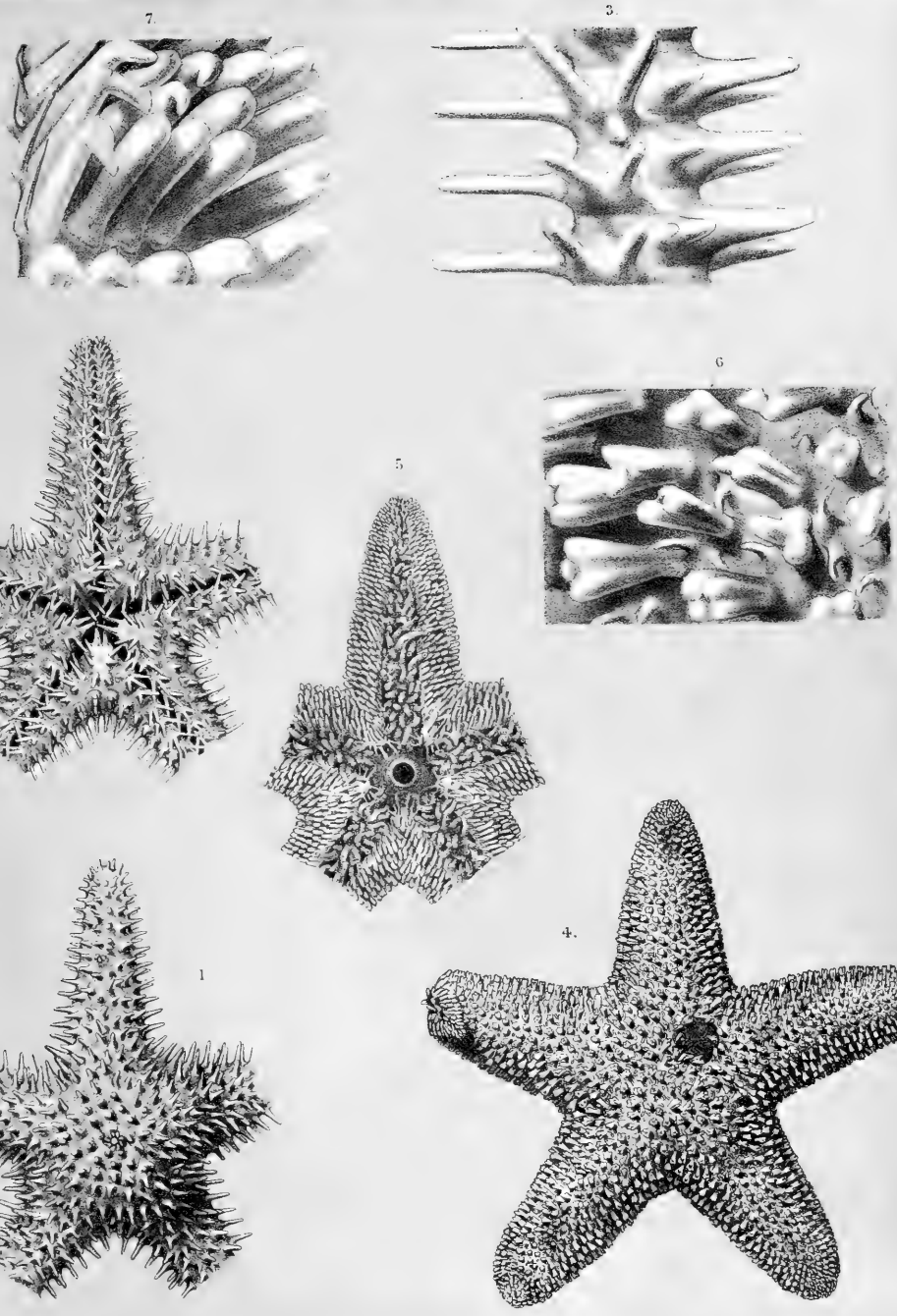
1-2. *SOLASTER PAXILLATUS*, n. sp.
 5-6. *SOLASTER REGULARIS*, n. sp.
 9-10. *CROSSASTER PENICILLATUS*, n. sp.

3-4. *SOLASTER TORULATUS*, n. sp.
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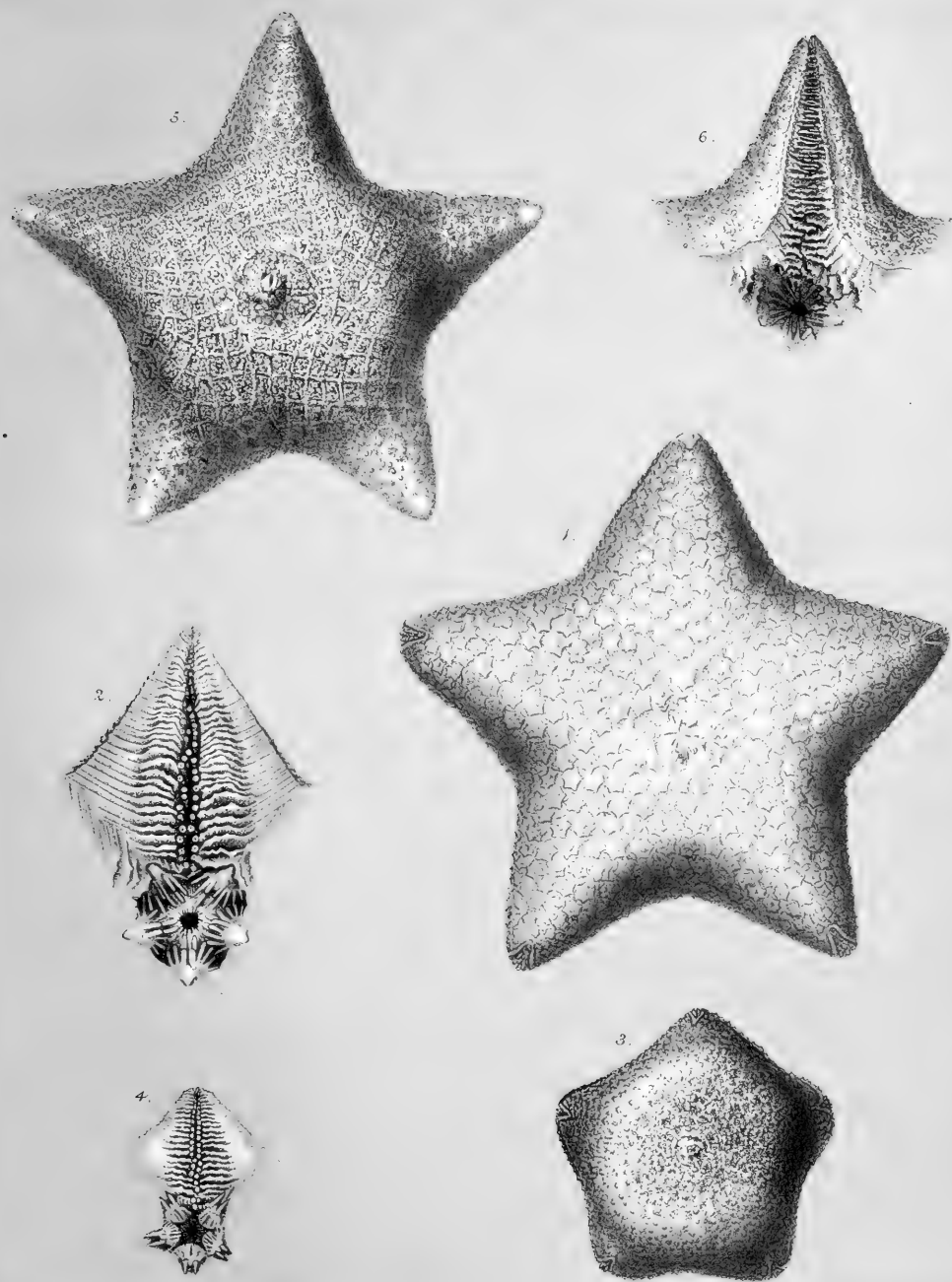
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1-3. CHITONASTER CATAPHRACTUS, n. sp. 4-7. PERIBOLASTER FOLLICULATUS, n. sp.

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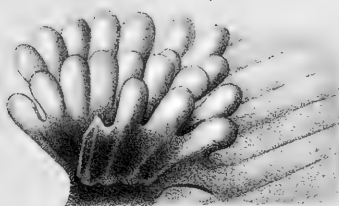
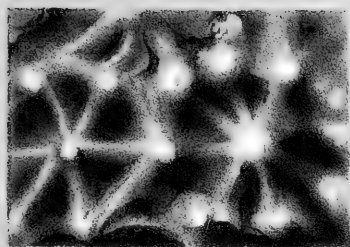
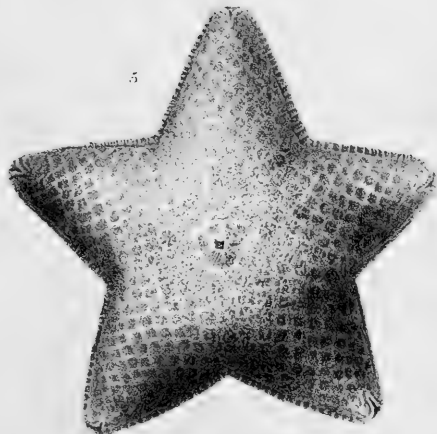
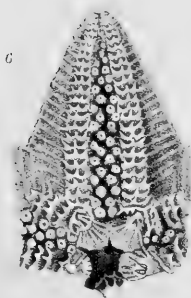
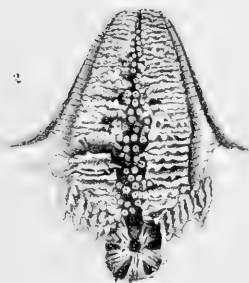
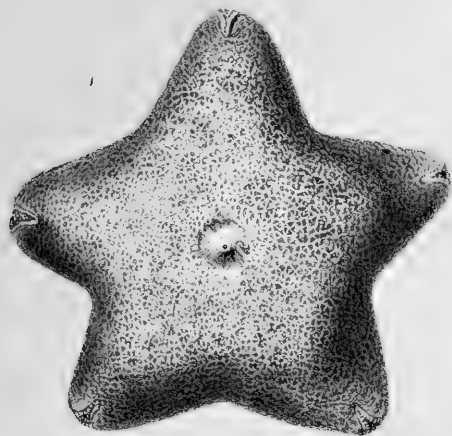


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Fig. 2. Actinal aspect ; natural size.

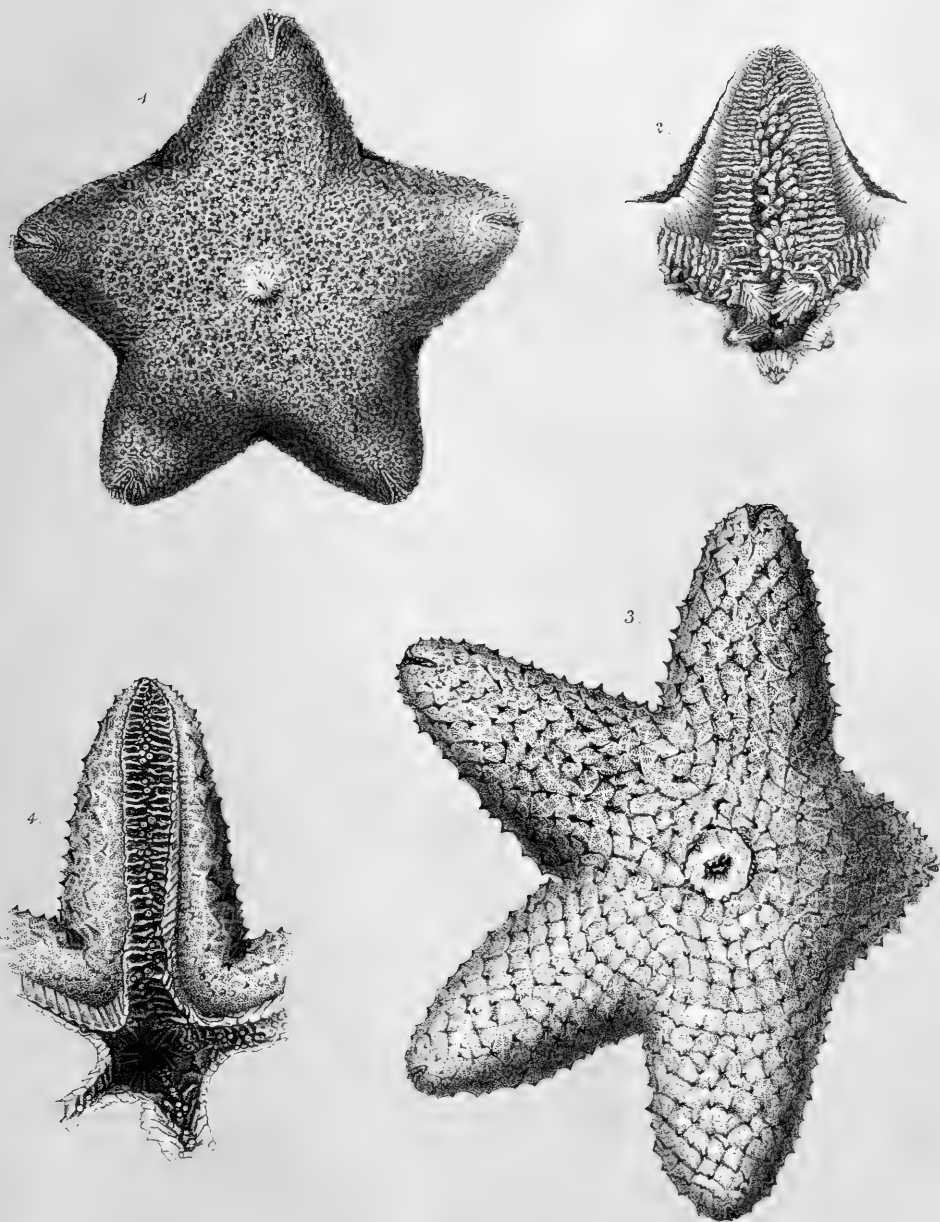
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Fig. 3. Abactinal aspect ; natural size.

Fig. 4. Actinal aspect ; natural size.

[For magnified details of this species see Pl. LXXVII. figs. 11, 12.]



1-2. RETASTER VERRUCOSUS, n. sp.

3-4. RETASTER INSIGNIS, n. sp.

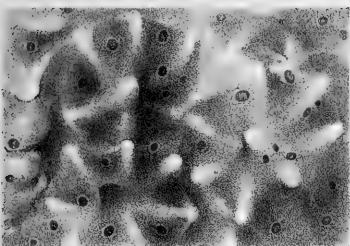
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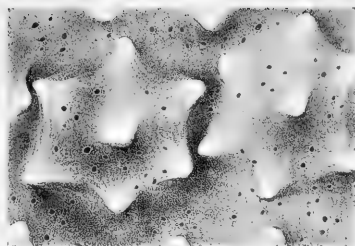
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[For macroscopic figures of this species see Pl. LXXVI. figs. 3, 4.]	

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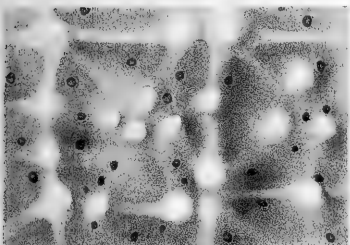
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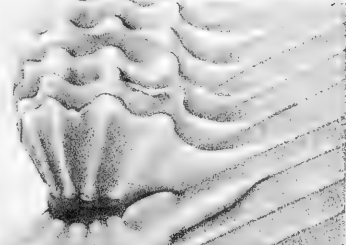
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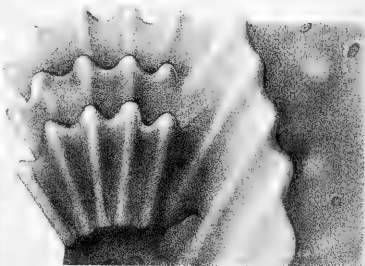
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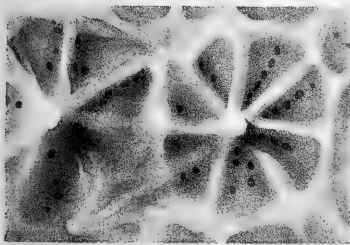
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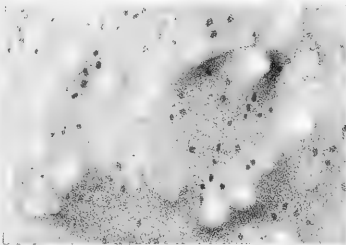
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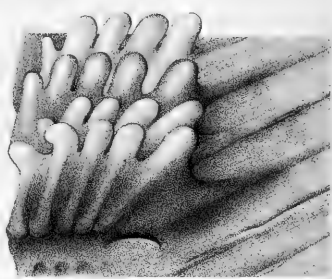
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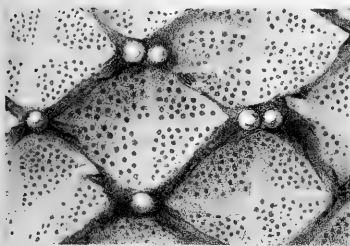
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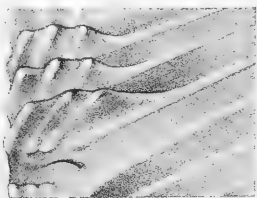
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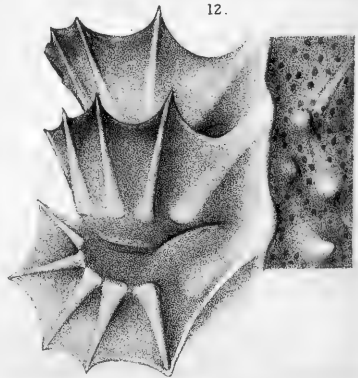
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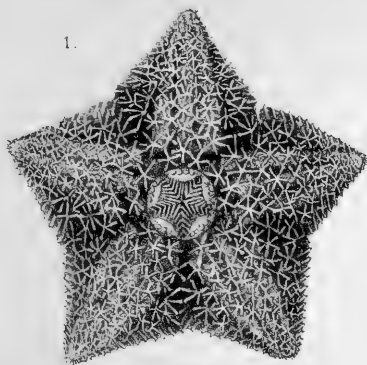
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7-8. RETASTER GIBBER, n. sp. 9-10. RETASTER VERRUCOSUS, n. sp. 11-12. RETASTER INSIGNIS, n. sp.

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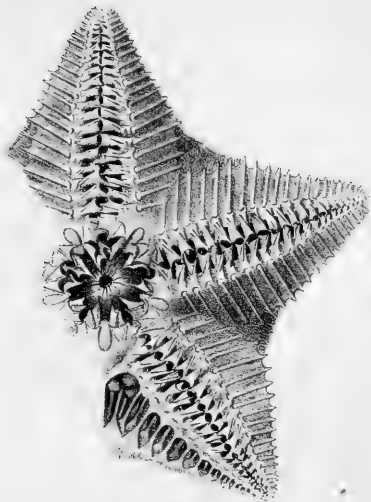
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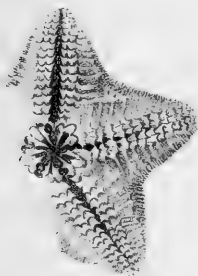
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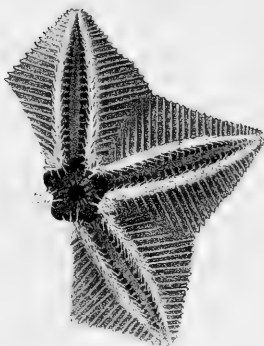
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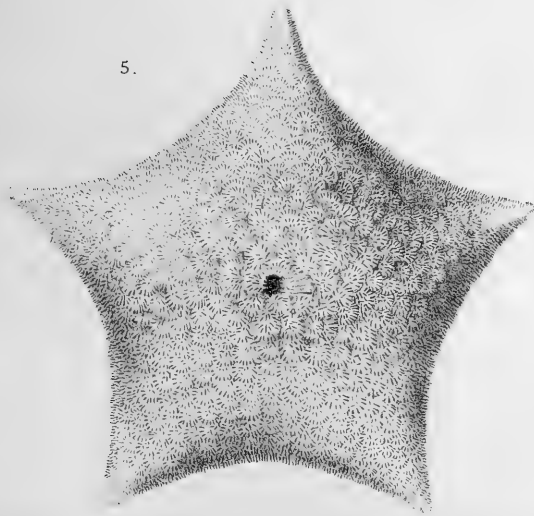
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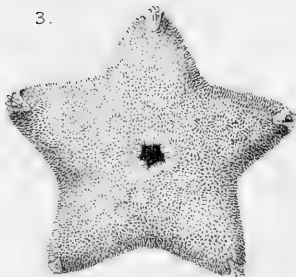
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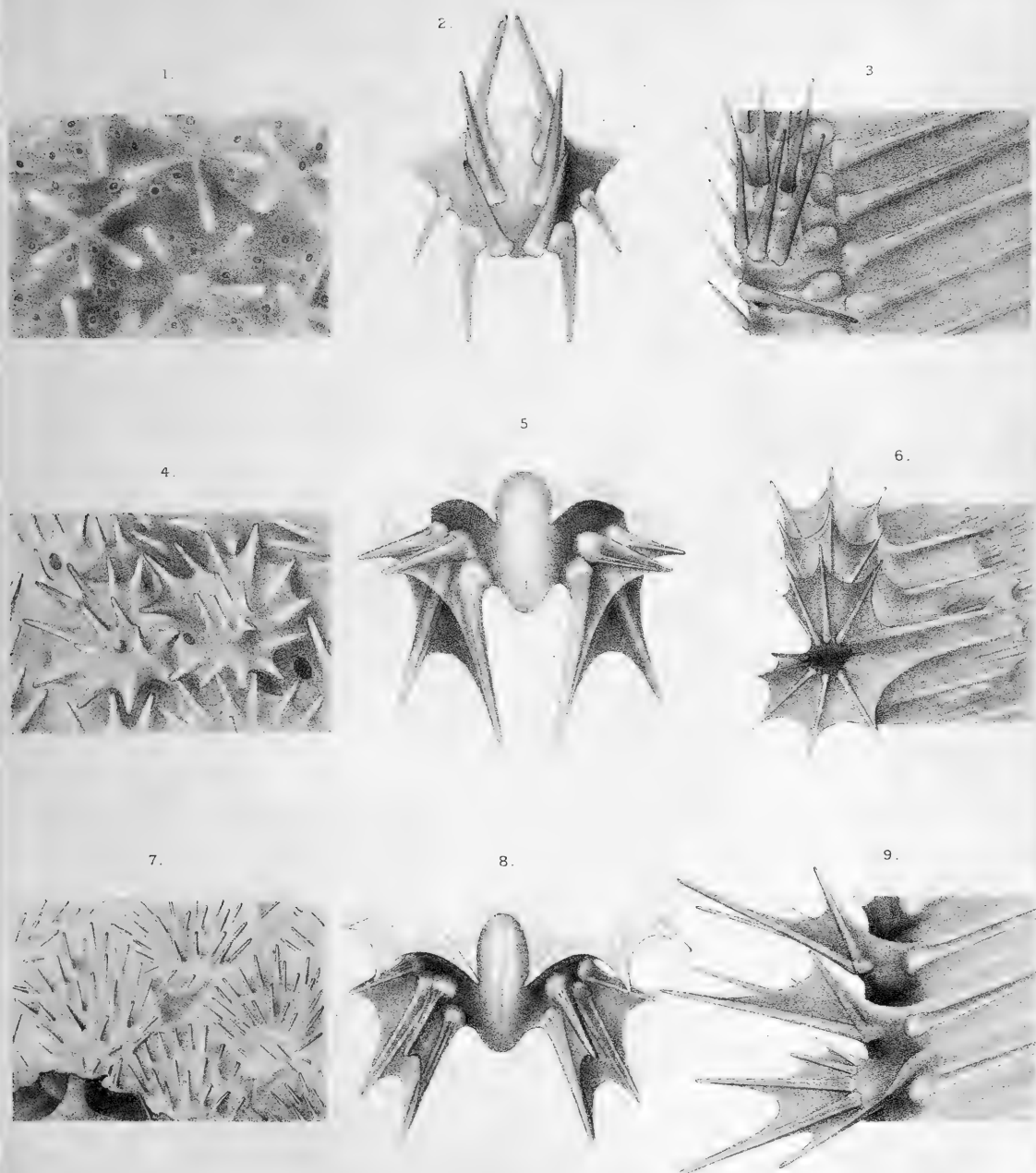


1-2. CALYPTRASTER COA, n. sp. 3-4. MARSIPASTER HIRSUTUS, n. sp.
5-6. MARSIPASTER SPINOSISSIMUS, n. sp.

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[For macroscopic figures of this species see Pl. LXXXVIII. figs. 5, 6.]	



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1-3. CALYPTRASTER COA, n sp.

4-6. MARSIPASTER HIRSUTUS, n sp.

7-9. MARSIPASTER SPINOSISSIMUS, n sp.

PLATE LXXX.

PLATE LXXX.

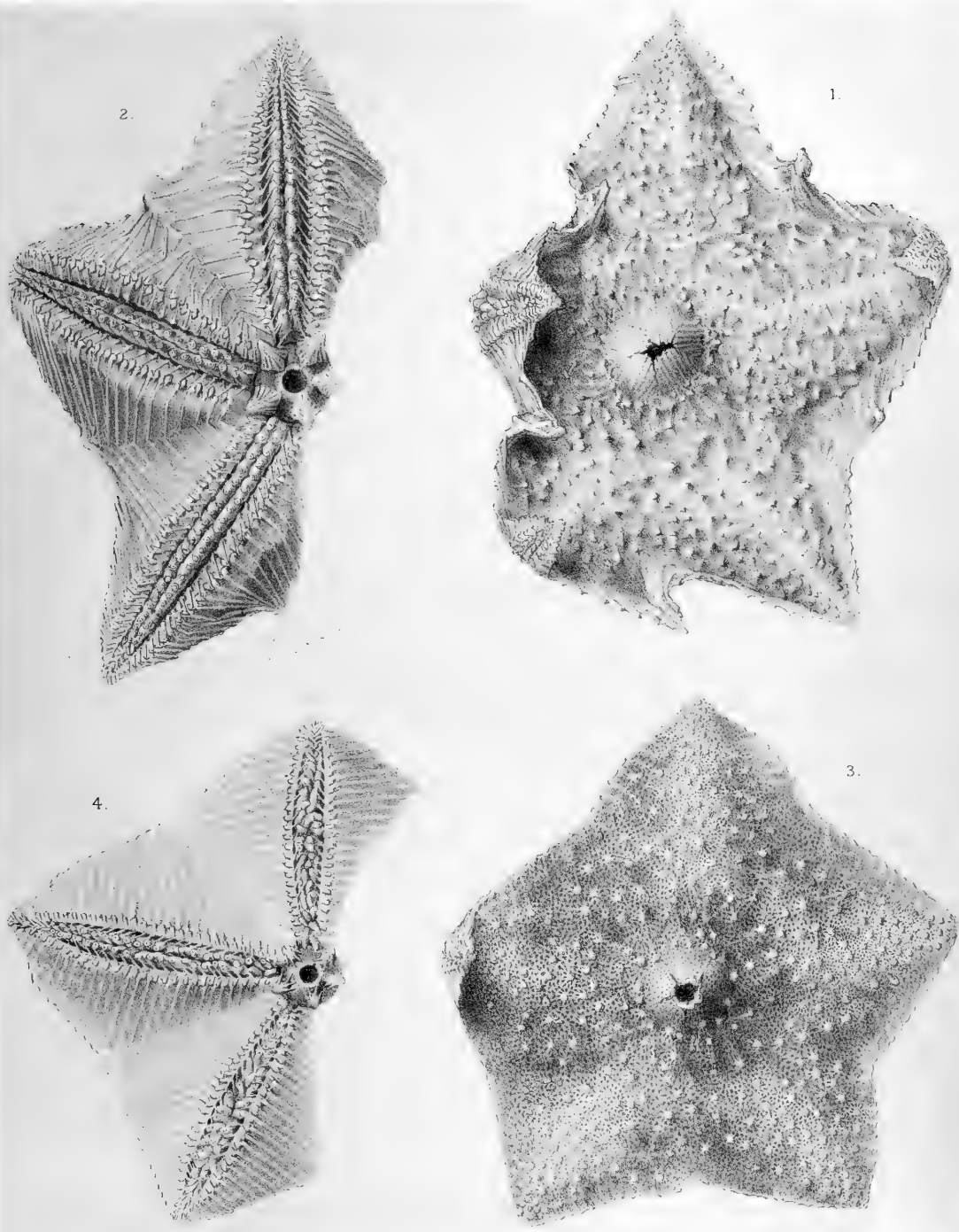
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Photo. Lab. Edm.

1-2. HYMENASTER PERGAMENTACEUS, n. sp.

3-4. HYMENASTER FORMOSUS, n. sp.

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PLATE LXXXII.

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Fig. 2. Actinal aspect; magnified 3 diameters.

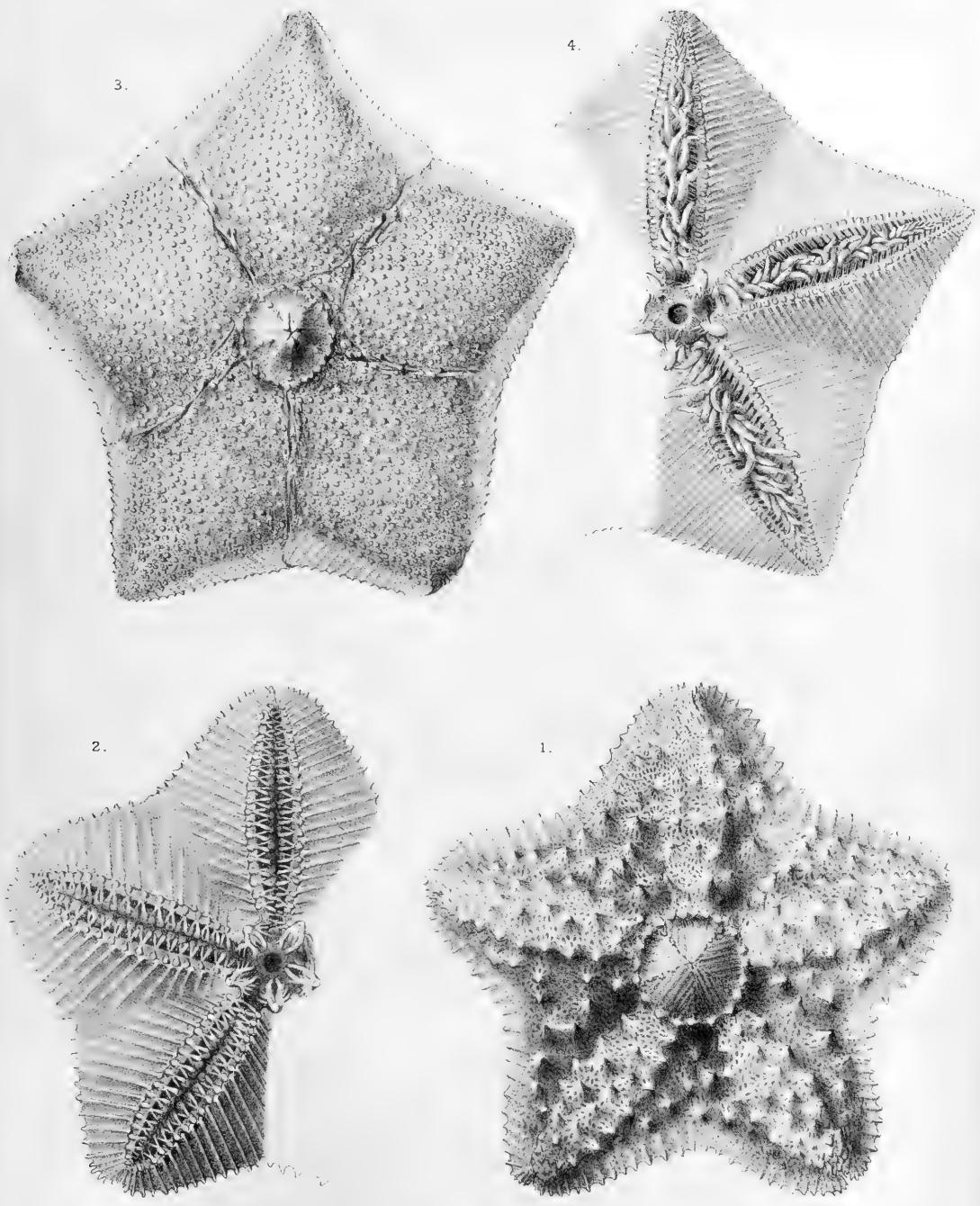
. [For magnified details of this species see Pl. LXXXIII. figs. 7-9.]

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Fig. 4. Actinal aspect; magnified $1\frac{1}{2}$ diameters.

[For magnified details of this species see Pl. LXXXIII. figs. 10-12.]



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1-2. HYMENASTER ECHINULATUS, n. sp. 3-4. HYMENASTER POROSISSIMUS, n. sp.

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PLATE LXXXIII.

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[For macroscopic figures of this species see Pl. LXXXII. figs. 3, 4.]	

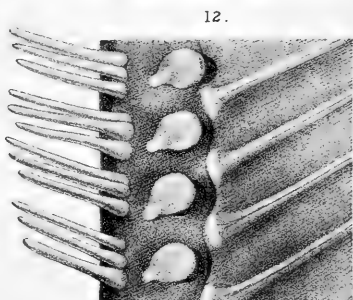
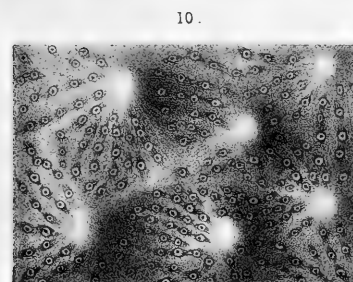
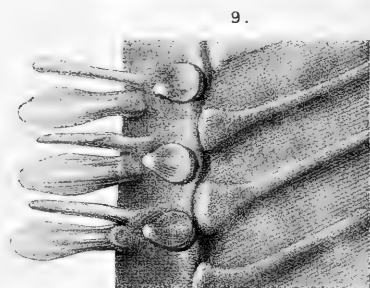
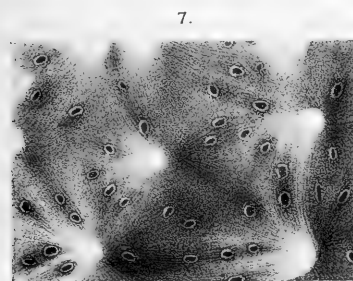
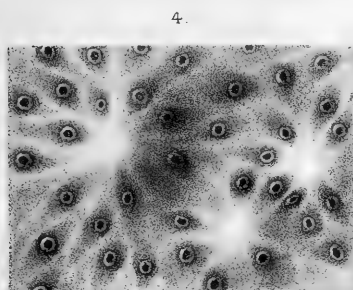
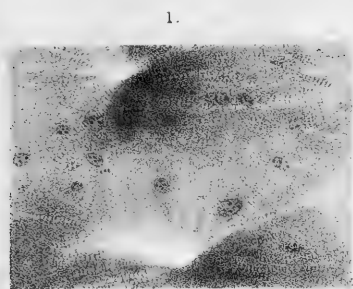


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Fig. 3. Abactinal aspect ; magnified $1\frac{1}{2}$ diameters.	
Fig. 4. Actinal aspect ; magnified $1\frac{1}{2}$ diameters.	
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1-2. HYMENASTER GLAUCUS, n. sp.

3-4. HYMENASTER VICARIUS, n. sp.

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[For magnified details of this species see Pl. LXXXVI. figs. 7-9.]	
Figs. 4, 5. <i>HYMENASTER CÆLATUS</i> , n. sp.	509
Fig. 4. Abactinal aspect; magnified 2 diameters.	
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[For magnified details of this species see Pl. LXXXVI. figs. 10-12.]	

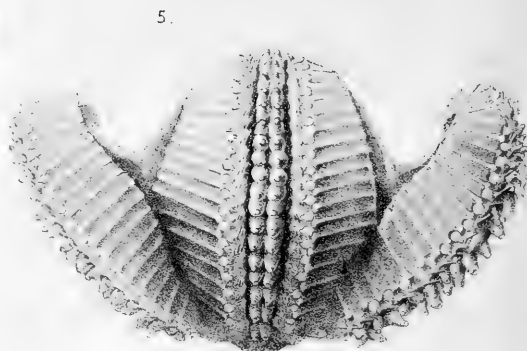
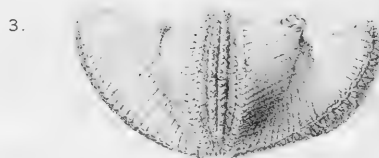
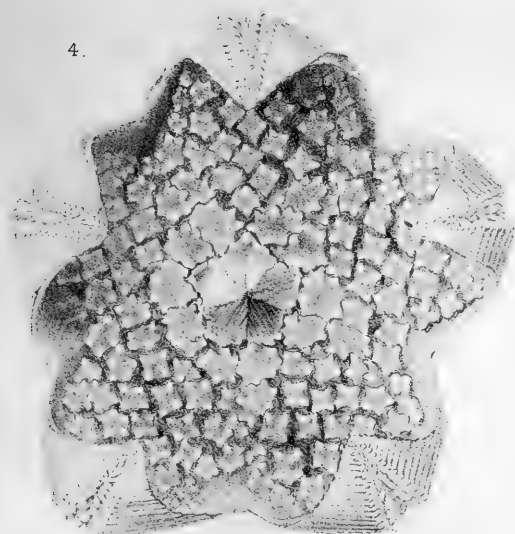
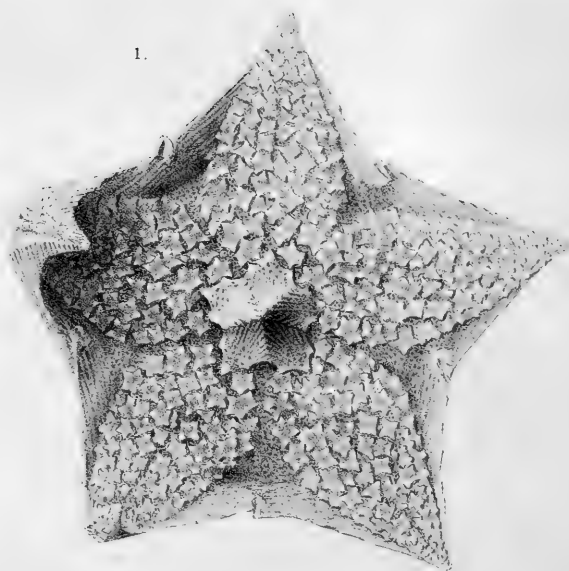
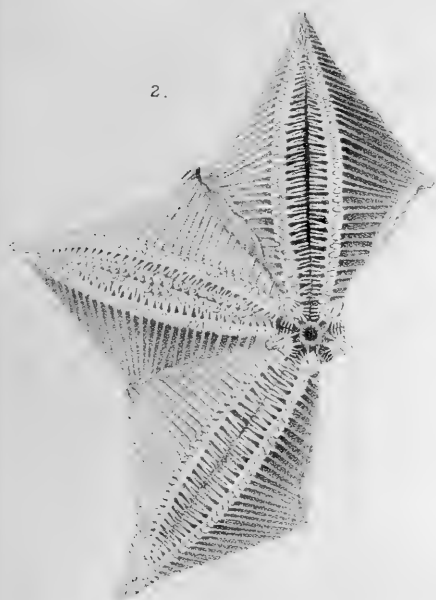
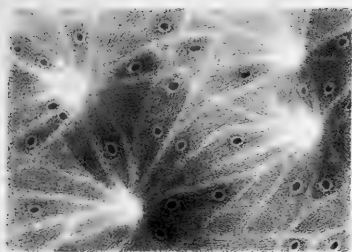


PLATE LXXXVI.

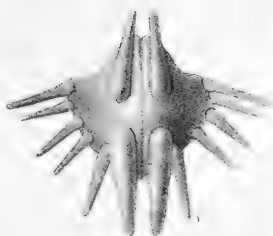
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[For macroscopic figures of this species see Pl. LXXXIV. figs. 3, 4.]	
Figs. 4-6. <i>HYMENASTER GLAUCUS</i> , n. sp.	505
Fig. 4. A portion of the supradorsal membrane ; magnified 15 diameters.	
Fig. 5. Mouth-plates ; magnified.	
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[For macroscopic figures of this species see Pl. LXXXIV. figs. 1, 2.]	
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[For macroscopic figures of this species see Pl. LXXXV. figs. 1-3.]	
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Fig. 10. A portion of the supradorsal membrane ; magnified 15 diameters.	
Fig. 11. Mouth-plates ; magnified.	
Fig. 12. Adambulacral plates and adjacent portion of the actinal surface ; magnified 8 diameters.	
[For macroscopic figures of this species see Pl. LXXXV. figs. 4, 5.]	

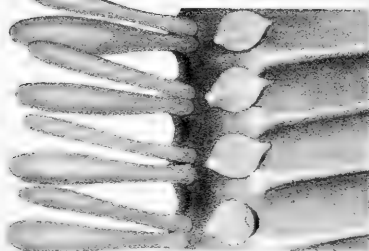
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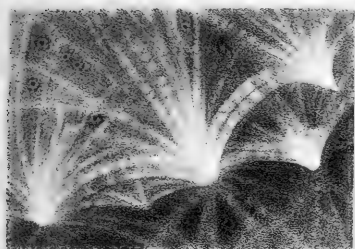
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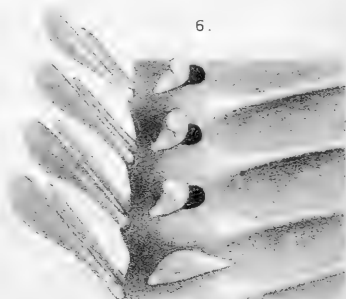
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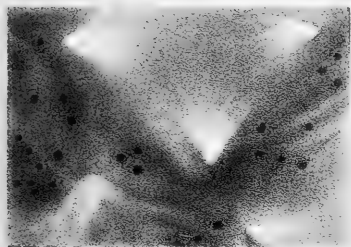
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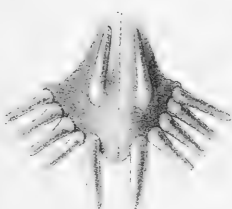
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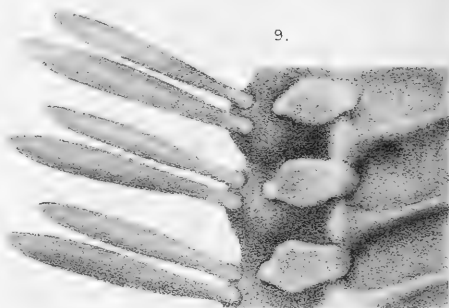
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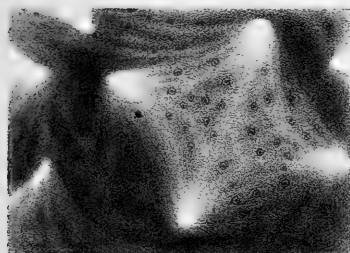
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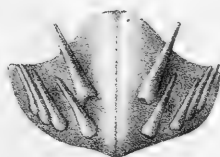
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12.

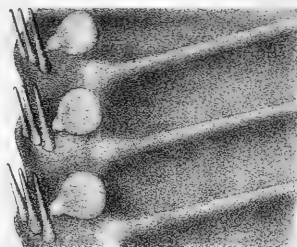
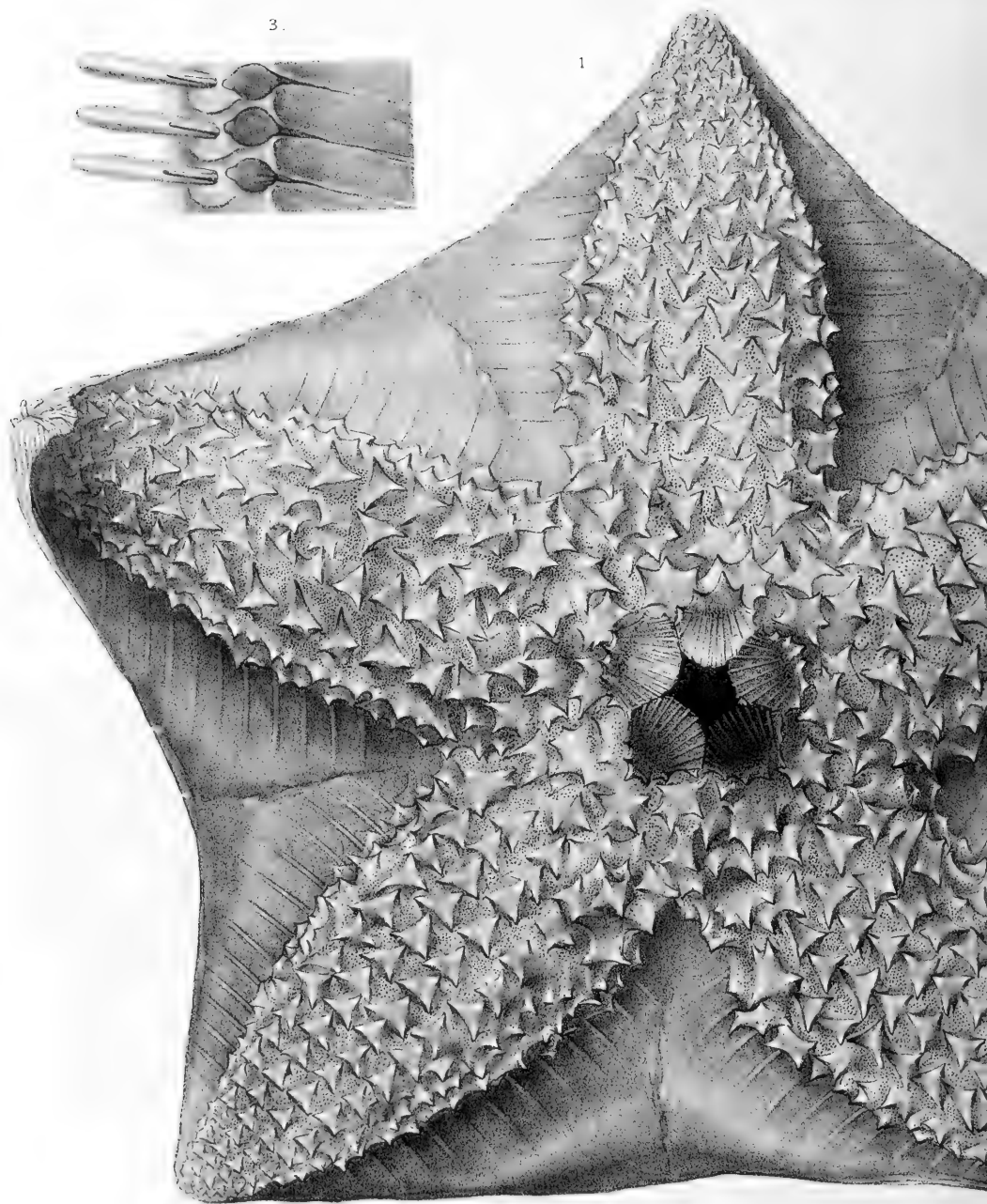


PLATE LXXXVII.

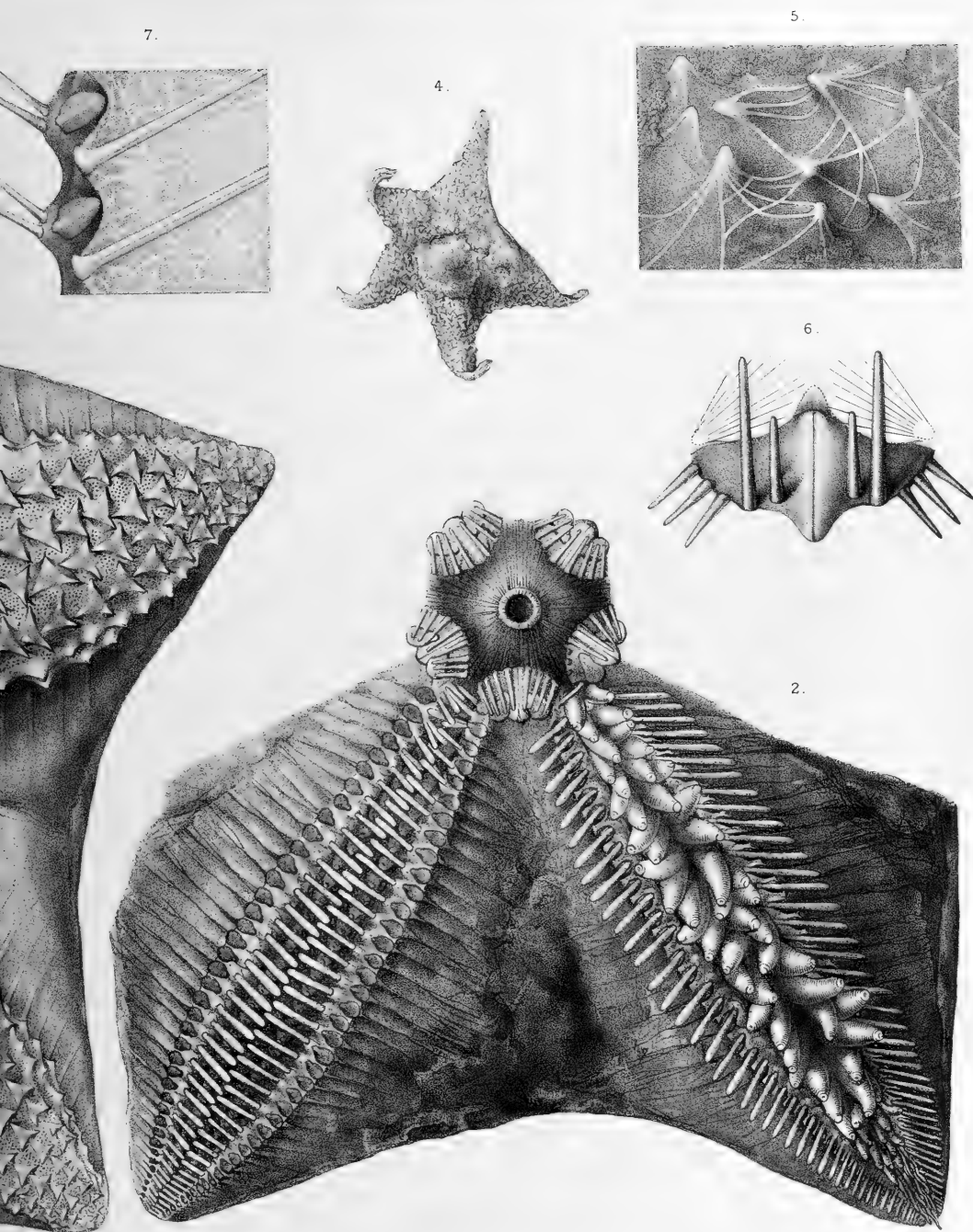
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Figs. 1-3.	HYMENASTER NOBILIS, Wyville Thomson,	495
Fig. 1.	Abactinal aspect; natural size.	
Fig. 2.	Actinal aspect; natural size.	
Fig. 3.	Adambulacral plates and adjacent portion of the actinal surface; magnified 3 diameters.	
Figs. 4-7.	HYMENASTER INFERNALIS, n. sp.	508
Fig. 4.	Abactinal aspect; natural size.	
Fig. 5.	A portion of the supradorsal membrane; magnified 15 diameters.	
Fig. 6.	Mouth-plates; magnified.	
Fig. 7.	Adambulacral plates and adjacent portion of the actinal surface; magnified 10 diameters.	

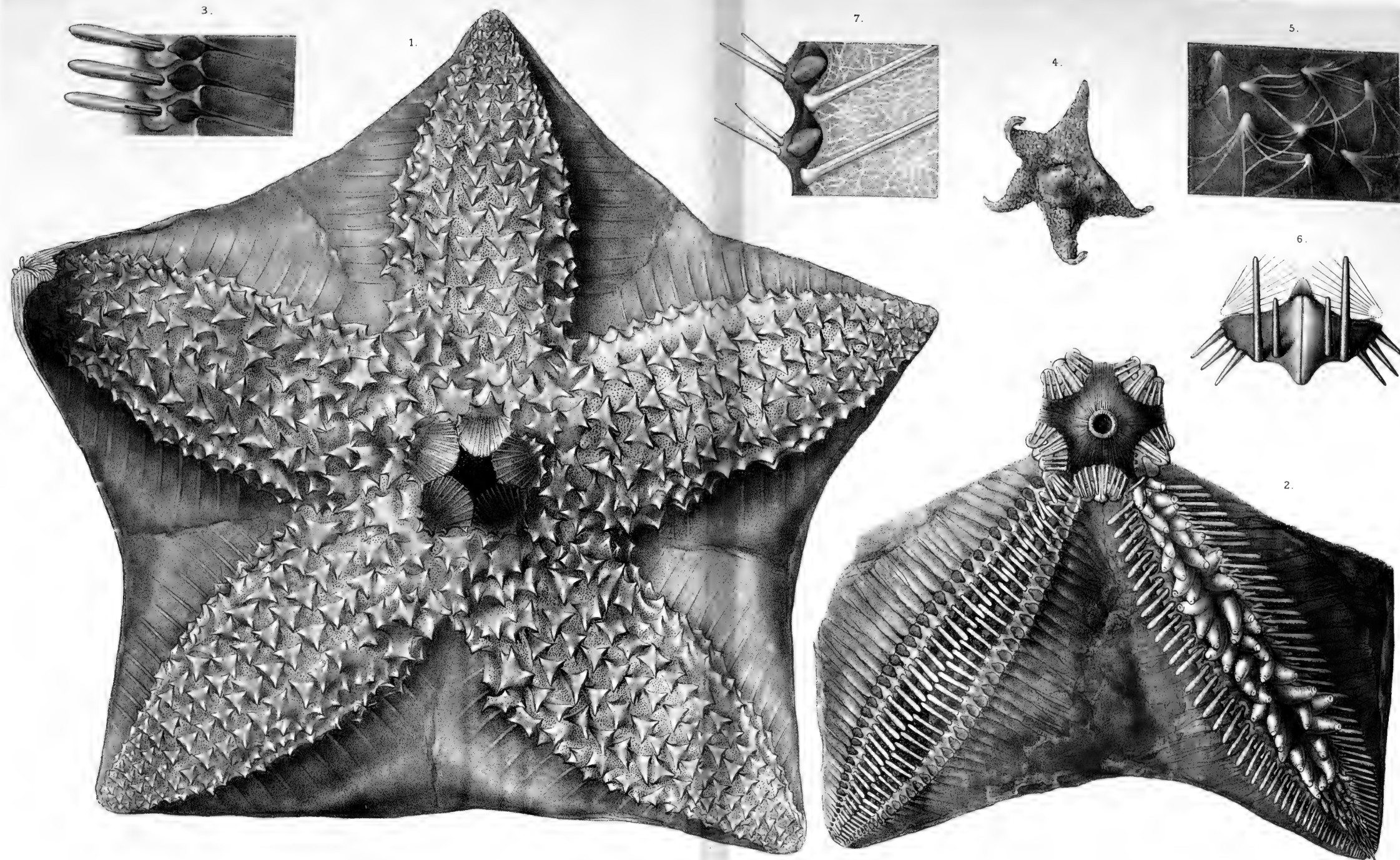


[H. Michael del.]

1-3. HYMENASTER NOBILIS, Wyville Thomson.



4-7. HYMENASTER INFERNALIS, n. sp.



1-3. HYMENASTER NOBILIS, Wyville Thomson.

4-7. HYMENASTER INFERNALIS, n. sp.



PLATE LXXXVIII.

PLATE LXXXVIII.

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Fig. 1. Abactinal aspect ; natural size.	
Fig. 2. Actinal aspect ; natural size.	
Fig. 3. A portion of the supradorsal membrane ; magnified 8 diameters.	
Fig. 4. Mouth-plates ; magnified.	
Fig. 5. Adambulacral plates and adjacent portion of the actinal surface ; magnified 4 diameters.	

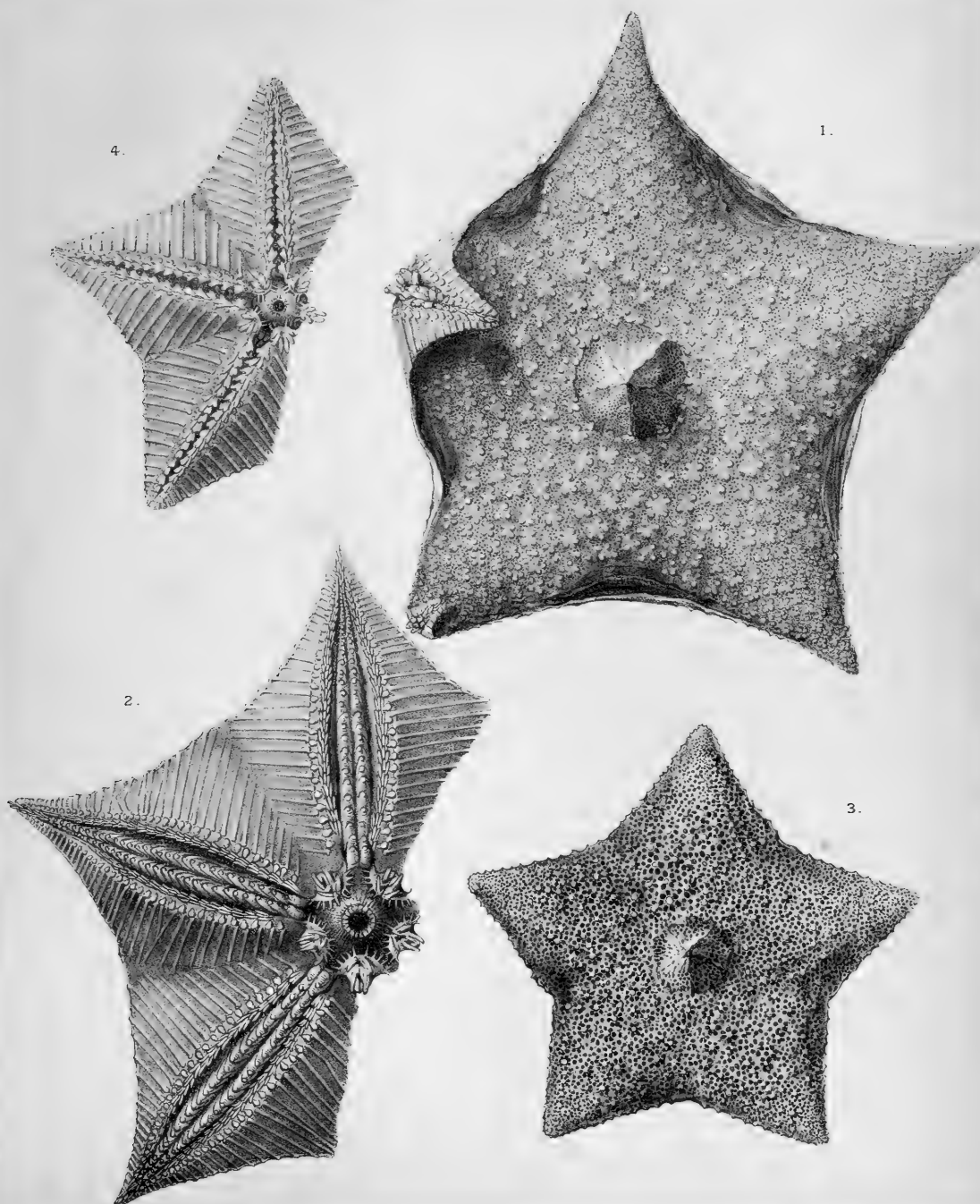


HYMENASTER CARNOSUS, n. sp.

PLATE LXXXIX.

PLATE LXXXIX.

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Figs. 1, 2. HYMENASTER CRUCIFER, n. sp. . . .	511
Fig. 1. Abactinal aspect ; magnified $1\frac{1}{2}$ diameters.	
Fig. 2. Actinal aspect ; magnified $1\frac{1}{2}$ diameters.	
[For magnified details of this species see Pl. XCI. figs. 1-3.]	
Figs. 3, 4. HYMENASTER ANOMALUS, n. sp. . . .	512
Fig. 3. Abactinal aspect ; magnified 3 diameters.	
Fig. 4. Actinal aspect ; magnified 3 diameters.	
[For magnified details of this species see Pl. XCI. figs. 4-6.]	



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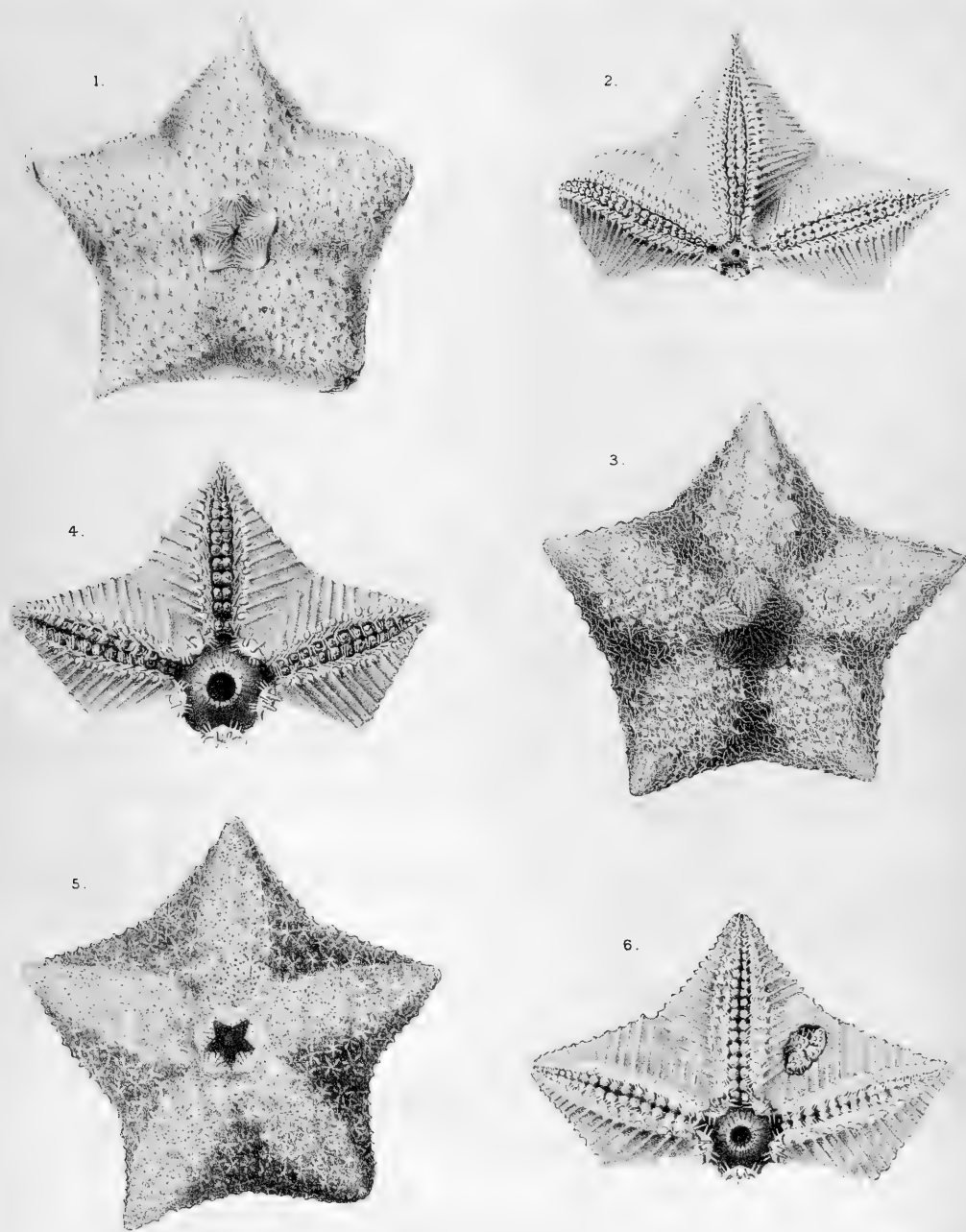
1-2. HYMENASTER CRUCIFER, n. sp.

3-4. HYMENASTER ANOMALUS, n. sp.

PLATE XC.

PLATE XC.

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Figs. 1, 2. HYMENASTER GRANIFERUS, n. sp.	517
Fig. 1. Abactinal aspect; magnified $1\frac{1}{2}$ diameters.	
Fig. 2. Actinal aspect; magnified $1\frac{1}{2}$ diameters.	
[For magnified details of this species see Pl. XCI. figs. 7-9.]	
Figs. 3, 4. HYMENASTER COCCINATUS, n. sp.	522
Fig. 3. Abactinal aspect; magnified 3 diameters.	
Fig. 4. Actinal aspect; magnified 3 diameters.	
[For magnified details of this species see Pl. XCI. figs. 10-12.]	
Figs. 5, 6. HYMENASTER PRÆCOQUIS, n. sp.	524
Fig. 5. Abactinal aspect; magnified 4 diameters.	
Fig. 6. Actinal aspect; magnified 4 diameters.	
(The young contained in the nidamental cavity may be seen through the membrane, and are exposed at the rent in one of the interradi- al areas.)	
[For magnified details of this species see Pl. XCI. figs. 13-15.]	



F.H. Michael del.

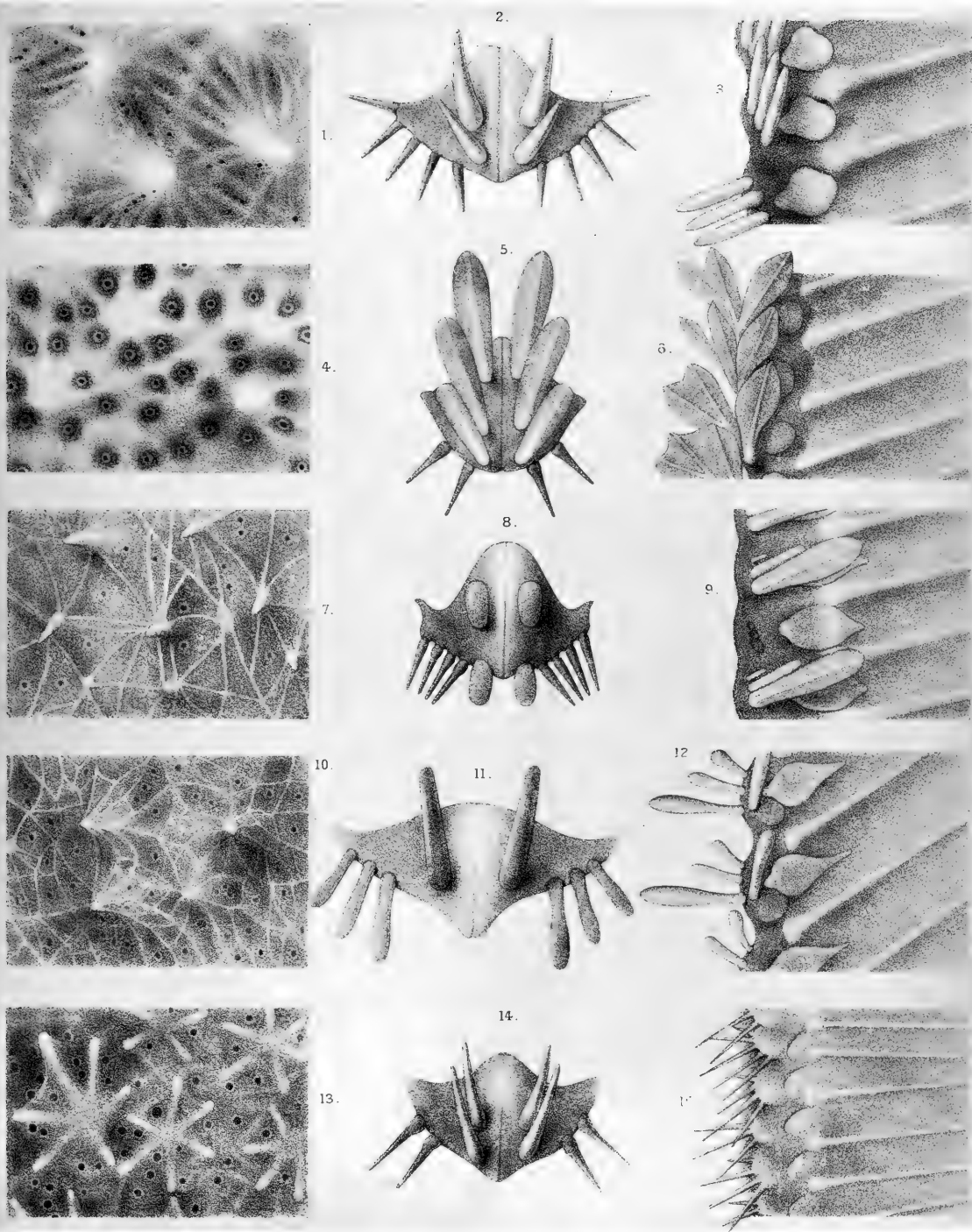
F. Roth, Lith. Edin.

1-2. *HYMENASTER GRANIFERUS*, n. sp. 3-4. *HYMENASTER COCCINATUS*, n. sp.
5-6. *HYMENASTER PRÆCOQUIS*, n. sp.

PLATE XCI.

PLATE XCI.

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Figs. 1-3. <i>HYMENASTER CRUCIFER</i> , n. sp.	511
Fig. 1. A portion of the supradorsal membrane ; magnified 15 diameters.	
Fig. 2. Mouth-plates ; magnified.	
Fig. 3. Adambulacral plates and adjacent portion of the actinal surface ; magnified 5 diameters.	
[For macroscopic figures of this species see Pl. LXXXIX. figs. 1, 2.]	
Figs. 4-6. <i>HYMENASTER ANOMALUS</i> , n. sp.	512
Fig. 4. A portion of the supradorsal membrane ; magnified 30 diameters.	
Fig. 5. Mouth-plates ; magnified.	
Fig. 6. Adambulacral plates and adjacent portion of the actinal surface ; magnified 15 diameters.	
[For macroscopic figures of this species see Pl. LXXXIX. figs. 3, 4.]	
Figs. 7-9. <i>HYMENASTER GRANIFERUS</i> , n. sp.	517
Fig. 7. A portion of the supradorsal membrane ; magnified 15 diameters.	
Fig. 8. Mouth-plates ; magnified.	
Fig. 9. Adambulacral plates and adjacent portion of the actinal surface ; magnified 10 diameters.	
[For macroscopic figures of this species see Pl. XC. figs. 1, 2.]	
Figs. 10-12. <i>HYMENASTER COCCINATUS</i> , n. sp.	522
Fig. 10. A portion of the supradorsal membrane ; magnified 15 diameters.	
Fig. 11. Mouth-plates ; magnified.	
Fig. 12. Adambulacral plates and adjacent portion of the actinal surface ; magnified 15 diameters.	
[For macroscopic figures of this species see Pl. XC. figs. 3, 4.]	
Figs. 13-15. <i>HYMENASTER PRÆCOQUIS</i> , n. sp.	524
Fig. 13. A portion of the supradorsal membrane ; magnified 15 diameters.	
Fig. 14. Mouth-plates ; magnified.	
Fig. 15. Adambulacral plates and adjacent portion of the actinal surface ; magnified 15 diameters.	
[For macroscopic figures of this species see Pl. XC. figs. 5, 6.]	



F.H. Michael del.

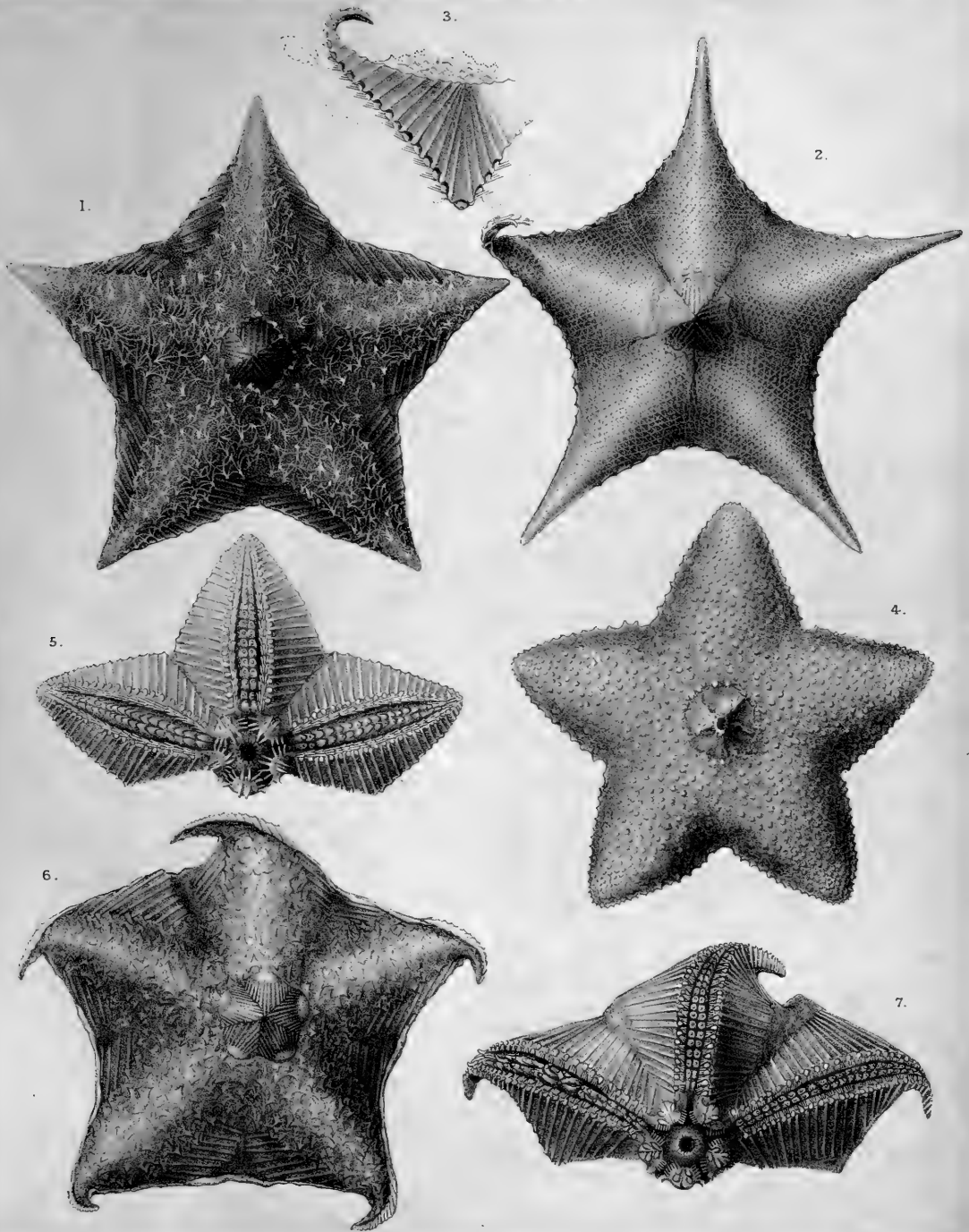
F. Roth, Lith. Edin.

1-3. HYMENASTER CRUCIFER, n.sp. 4-6. HYMENASTER ANOMALUS, n.sp. 7-9. HYMENASTER GRANIFERUS, n.sp.
10-12. HYMENASTER COCCINATUS, n.sp. 13-15. HYMENASTER PRÆCOQUIS, n.sp.

PLATE XCII.

PLATE XCII.

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Fig. 1. HYMENASTER PULLATUS, n. sp.	519
Fig. 1. Abactinal aspect; magnified $1\frac{1}{2}$ diameters.	
[For magnified details of this species see Pl. XCIII. figs. 1-3.]	
Figs. 2, 3. HYMENASTER GEOMETRICUS, n. sp.	518
Fig. 2. Abactinal aspect; magnified $1\frac{1}{2}$ diameters.	
Fig. 3. Profile view, showing the actinal interrarial area (partly diagrammatic); magnified $1\frac{1}{2}$ diameters.	
[For magnified details of this species see Pl. XCIII. figs. 4-6.]	
Figs. 4, 5. HYMENASTER LATEBROSUS, n. sp.	514
Fig. 4. Abactinal aspect; magnified 2 diameters.	
Fig. 5. Actinal aspect; magnified 2 diameters.	
[For magnified details of this species see Pl. XCIII. figs. 7-9.]	
Figs. 6, 7. HYMENASTER MEMBRANACEUS, Wyville Thomson,	521
Fig. 6. Abactinal aspect; magnified $1\frac{1}{2}$ diameters.	
Fig. 7. Actinal aspect; magnified $1\frac{1}{2}$ diameters.	
[For magnified details of this species see Pl. XCIII. figs. 10-12.]	



F.H. Michael del.

F. Huth. Lith. Edin'

1. HYMENASTER PULLATUS, n. sp. 2-3. HYMENASTER GEOMETRICUS, n. sp.
 4-5. HYMENASTER LATEBROSUS, n. sp. 6-7. HYMENASTER MEMBRANACEUS, Wyville Thomson.

PLATE XCIII.

PLATE XCIII.

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Figs. 1-3. <i>HYMENASTER PULLATUS</i> , n. sp.	519
Fig. 1. A portion of the supradorsal membrane ; magnified 15 diameters.	
Fig. 2. Mouth-plates ; magnified.	
Fig. 3. Adambulacral plates and adjacent portion of the actinal surface ; magnified 8 diameters.	
[For a macroscopic figure of this species see Pl. XCII. fig. 1.]	
Figs. 4-6. <i>HYMENASTER GEOMETRICUS</i> , n. sp.	518
Fig. 4. A portion of the supradorsal membrane ; magnified 15 diameters.	
Fig. 5. Mouth-plates ; magnified.	
Fig. 6. Adambulacral plates and adjacent portion of the actinal surface ; magnified 5 diameters.	
[For macroscopic figures of this species see Pl. XCII. figs. 2, 3.]	
Figs. 7-9. <i>HYMENASTER LATEBROSUS</i> , n. sp.	514
Fig. 7. A portion of the supradorsal membrane ; magnified 15 diameters.	
Fig. 8. Mouth-plates ; magnified.	
Fig. 9. Adambulacral plates and adjacent portion of the actinal surface ; magnified 8 diameters.	
[For macroscopic figures of this species see Pl. XCII. figs. 4, 5.]	
Figs. 10-12. <i>HYMENASTER MEMBRANACEUS</i> , Wyville Thomson,	521
Fig. 10. A portion of the supradorsal membrane ; magnified 15 diameters.	
Fig. 11. Mouth-plates ; magnified.	
Fig. 12. Adambulacral plates and adjacent portion of the actinal surface ; magnified 8 diameters.	
[For macroscopic figures of this species see Pl. XCII. figs. 6, 7.]	

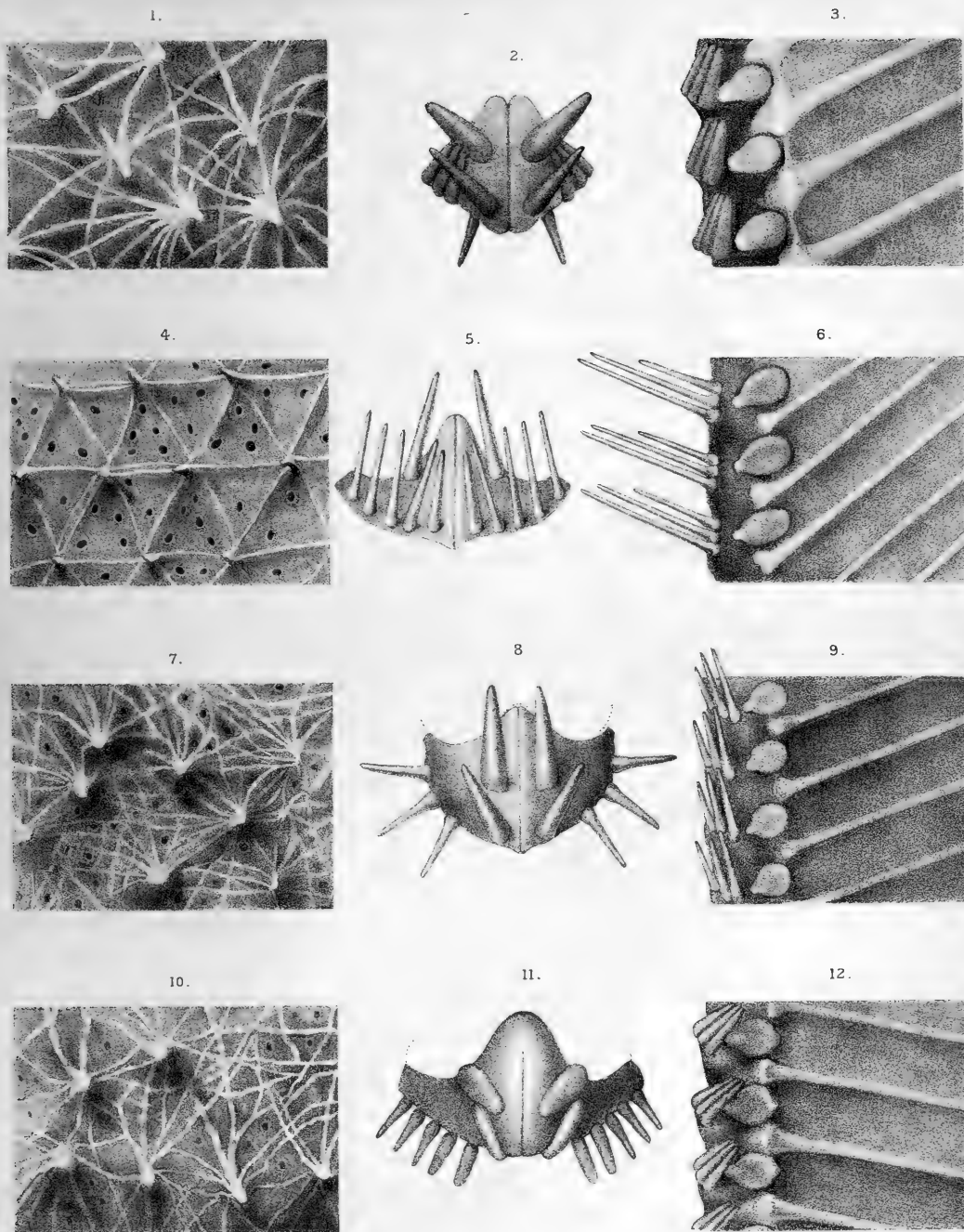


PLATE XCIV.

PLATE XCIV.

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Figs. 1-5. <i>BENTHASTER WYVILLE-THOMSONI</i> , n. sp.	527
Fig. 1. Abactinal aspect; magnified 2 diameters.	
Fig. 2. Actinal aspect; magnified 2 diameters.	
Fig. 3. Adambulacral plates and adjacent portion of the actinal surface; magnified 18 diameters.	
Fig. 4. Diagrammatic view of the abactinal paxillæ and rudimentary supradorsal membrane, seen in profile; magnified.	
Fig. 5. Diagram of the plates on the outer part of a ray; magnified.	
Figs. 6-9. <i>BENTHASTER PENICILLATUS</i> , n. sp.	529
Fig. 6. Abactinal aspect; magnified 2 diameters.	
Fig. 7. Actinal aspect; magnified 2 diameters.	
Fig. 8. Adambulacral plates and adjacent portion of the actinal surface; magnified.	
Fig. 9. Diagram of the plates on the outer part of a ray; magnified.	

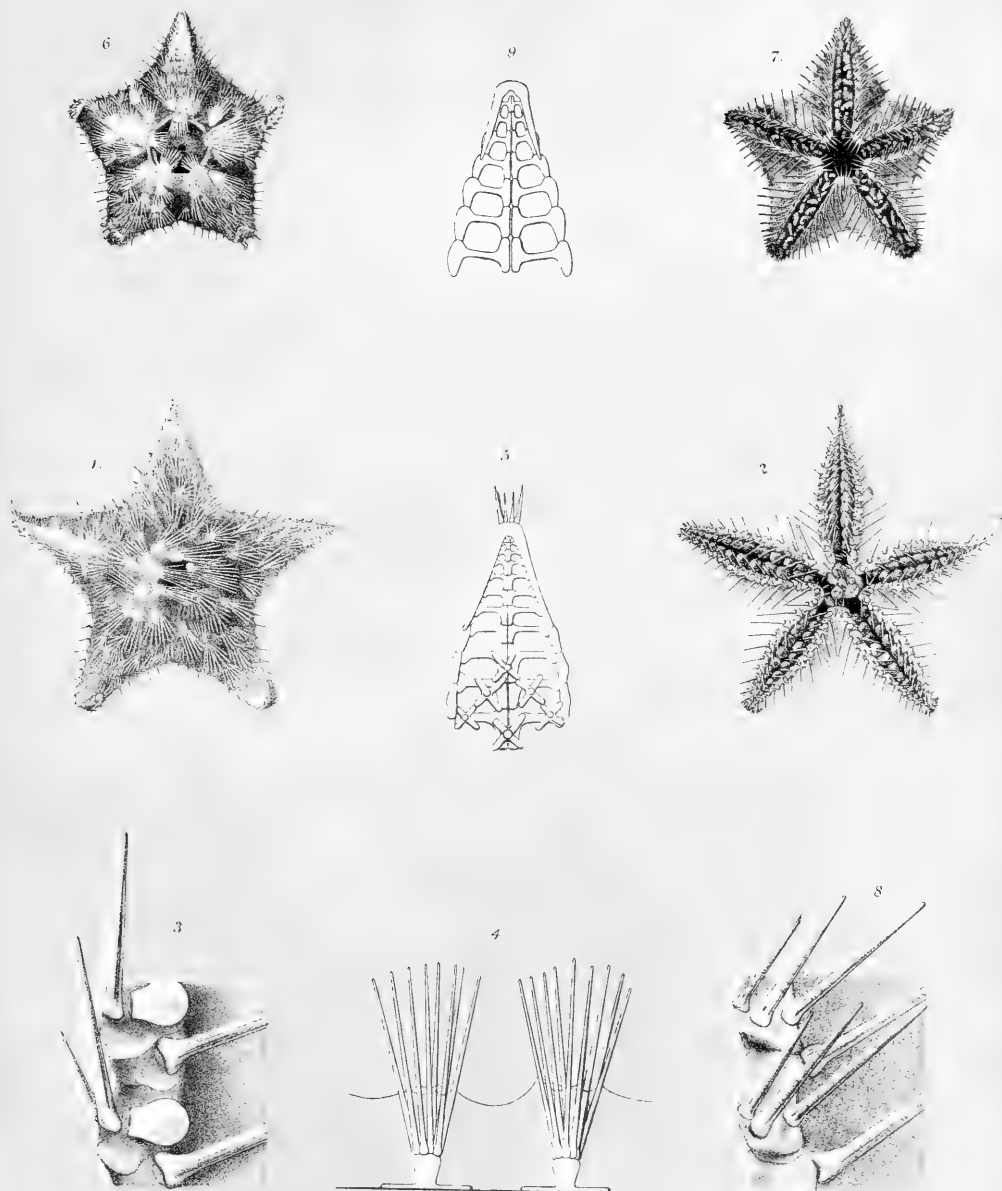
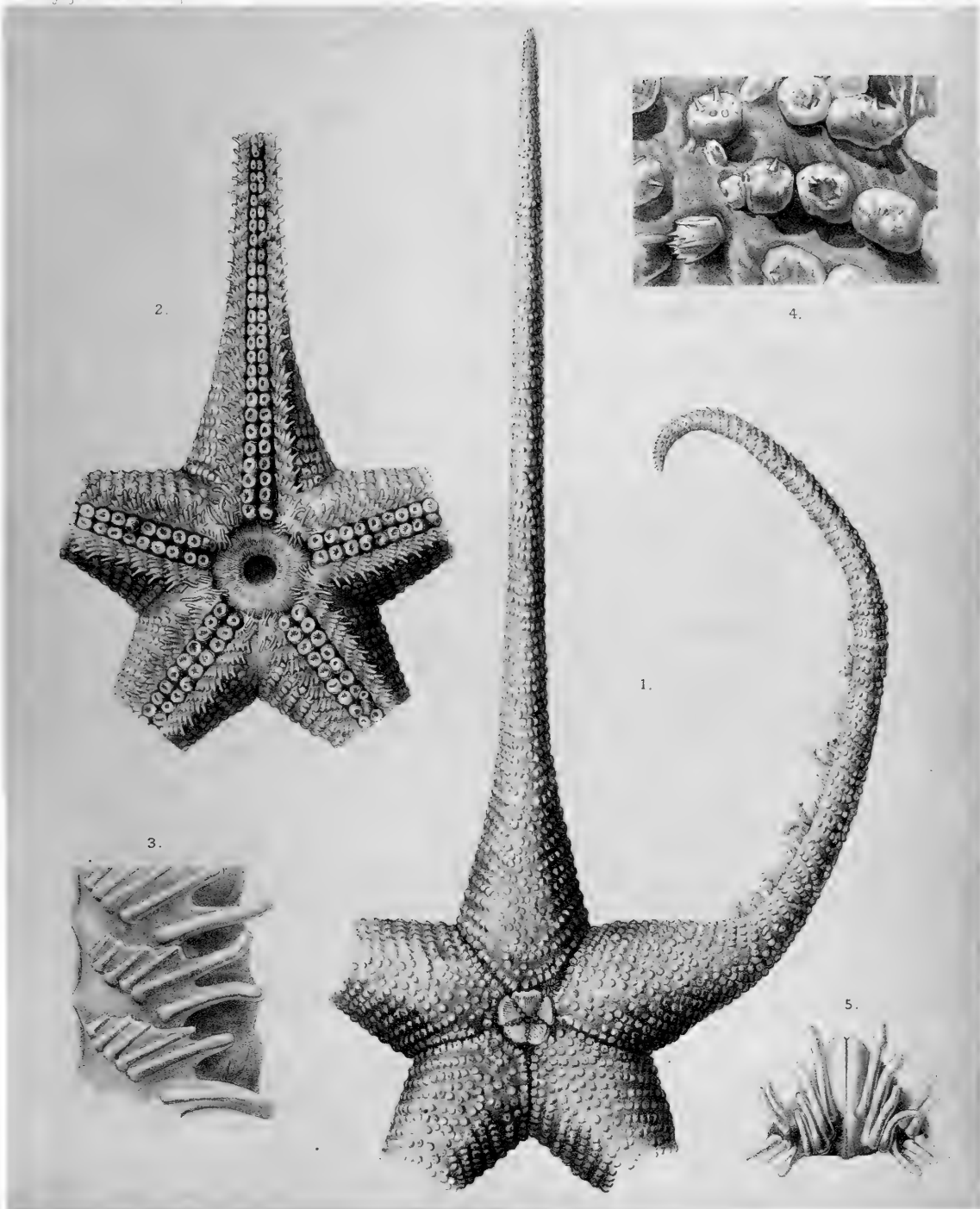


PLATE XCV.

PLATE XCV.

Figs. 1-5. PYTHONASTER MURRAYI, n. sp.	Page
Fig. 1. Abactinal aspect; magnified $1\frac{1}{2}$ diameters.	532
Fig. 2. Actinal aspect; magnified $1\frac{1}{2}$ diameters.	
Fig. 3. Adambulacral plates and adjacent portion of the actinal surface; magnified 9 diameters.	
Fig. 4. A portion of the abactinal surface; magnified 9 diameters.	
Fig. 5. Mouth-plates; magnified 5 diameters.	



F. H. Michael del.

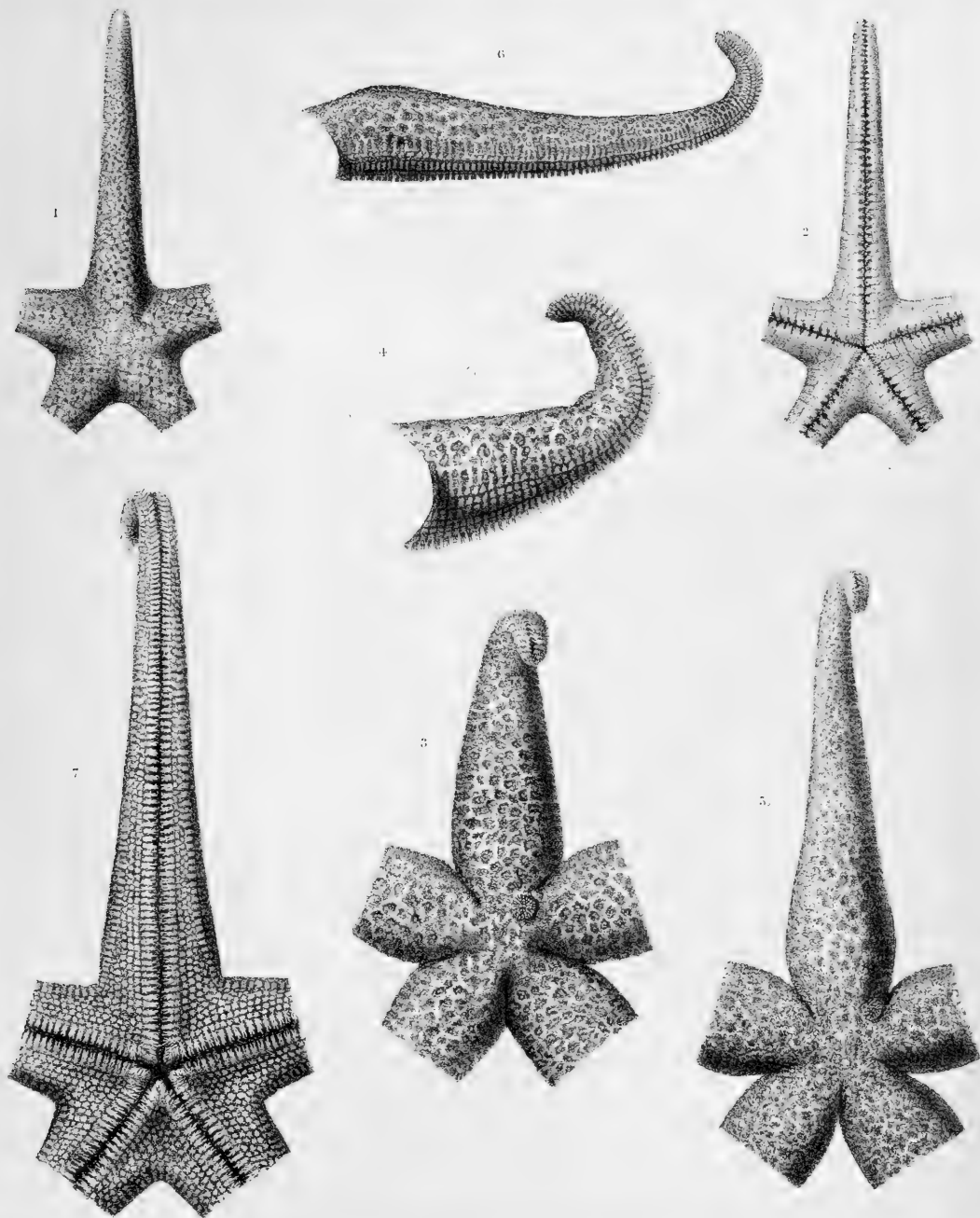
T. H. Muller sculp.

PYTHONASTER MURRAYI, n. sp.

PLATE XCVI.

PLATE XCVI.

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Figs. 1, 2. <i>CRIBRELLA COMPACTA</i> , n. sp.	543
Fig. 1. Abactinal aspect ; magnified 4 diameters.	
Fig. 2. Actinal aspect ; magnified 4 diameters.	
[For magnified details of this species see Pl. XCVIII. figs. 3, 4.]	
Figs. 3, 4. <i>CRIBRELLA OBESA</i> , n. sp.	544
Fig. 3. Abactinal aspect ; magnified $1\frac{1}{2}$ diameters.	
Fig. 4. Profile view of a ray ; magnified $1\frac{1}{2}$ diameters.	
[For magnified details of this species see Pl. XCVIII. figs. 5, 6.]	
Figs. 5, 6. <i>CRIBRELLA SUFFLATA</i> , n. sp.	549
Fig. 5. Abactinal aspect ; magnified $1\frac{1}{2}$ diameters.	
Fig. 6. Profile view of a ray ; magnified $1\frac{1}{2}$ diameters.	
[For magnified details of this species see Pl. XCVIII. figs. 1, 2.]	
Fig. 7. <i>CRIBRELLA PRÆSTANS</i> , n. sp.	545
Fig. 7. Actinal aspect ; magnified $1\frac{1}{2}$ diameters.	
[For magnified details of this species see Pl. XCVIII. figs. 7, 8.]	



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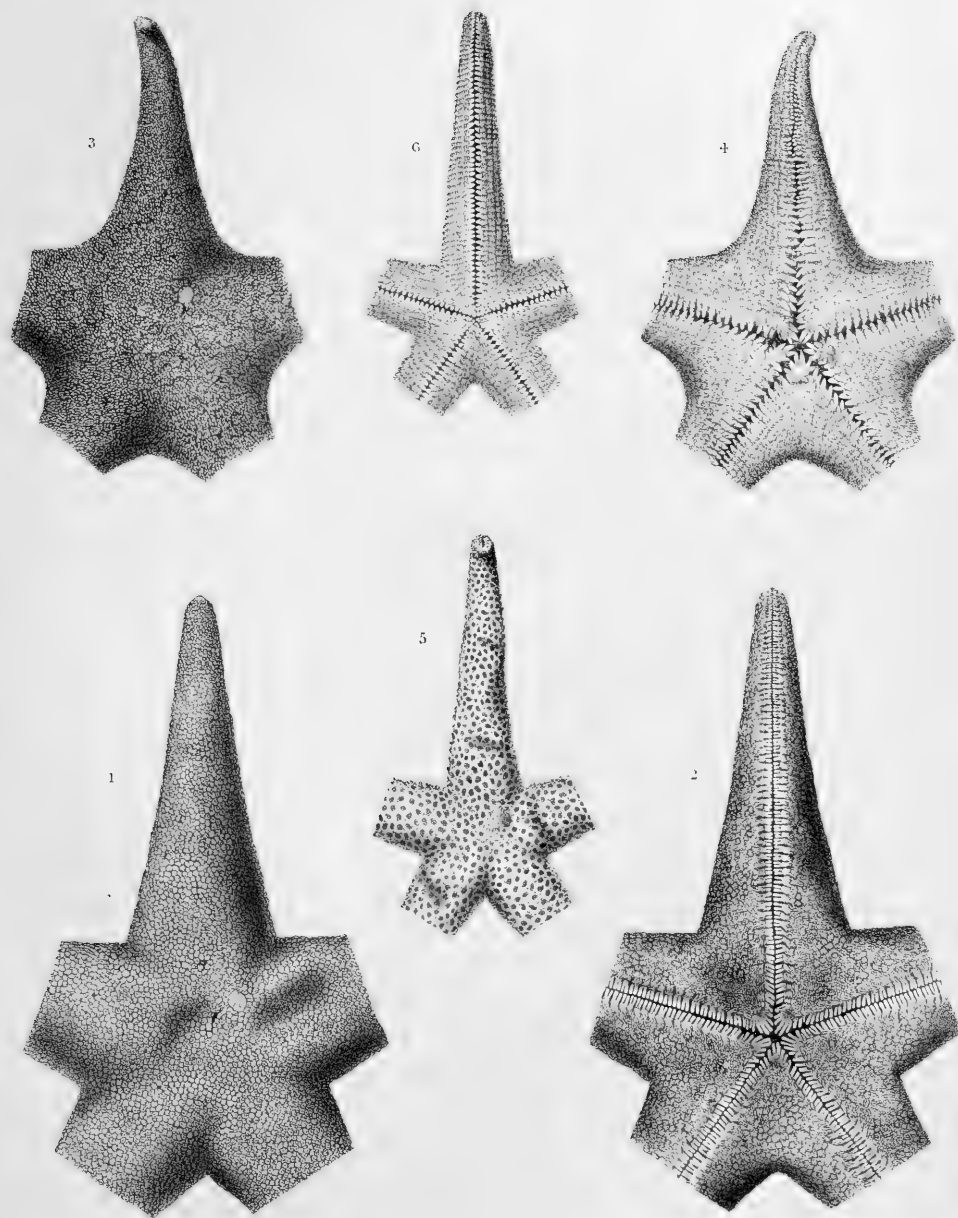
Museum of the University of California

1-2. CRIBRELLA COMPACTA, n. sp. 3-4. CRIBRELLA OBESA, n. sp.
5-6. CRIBRELLA SUFFLATA, n. sp. 7. CRIBRELLA PRÆSTANS, n. sp.

PLATE XCVII.

PLATE XCVII.

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Figs. 1, 2. PERKNASTER DENSUS, n. sp.	552
Fig. 1. Abactinal aspect; magnified $1\frac{1}{2}$ diameters.		
Fig. 2. Actinal aspect; magnified $1\frac{1}{2}$ diameters.		
[For magnified details of this species see Pl. XCVIII. figs. 11, 12.]		
Figs. 3, 4. PERKNASTER FUSCUS, n. sp.	551
Fig. 3. Abactinal aspect; magnified $1\frac{1}{2}$ diameters.		
Fig. 4. Actinal aspect; magnified $1\frac{1}{2}$ diameters.		
[For magnified details of this species see Pl. LXII. fig. 1.]		
Figs. 5, 6. CRIBRELLA SIMPLEX, n. sp.	547
Fig. 5. Abactinal aspect; magnified 2 diameters.		
Fig. 6. Actinal aspect; magnified 2 diameters.		
[For magnified details of this species see Pl. XCVIII. figs. 9, 10.]		



1-2. PERKNASTER DENSUS, n.sp.

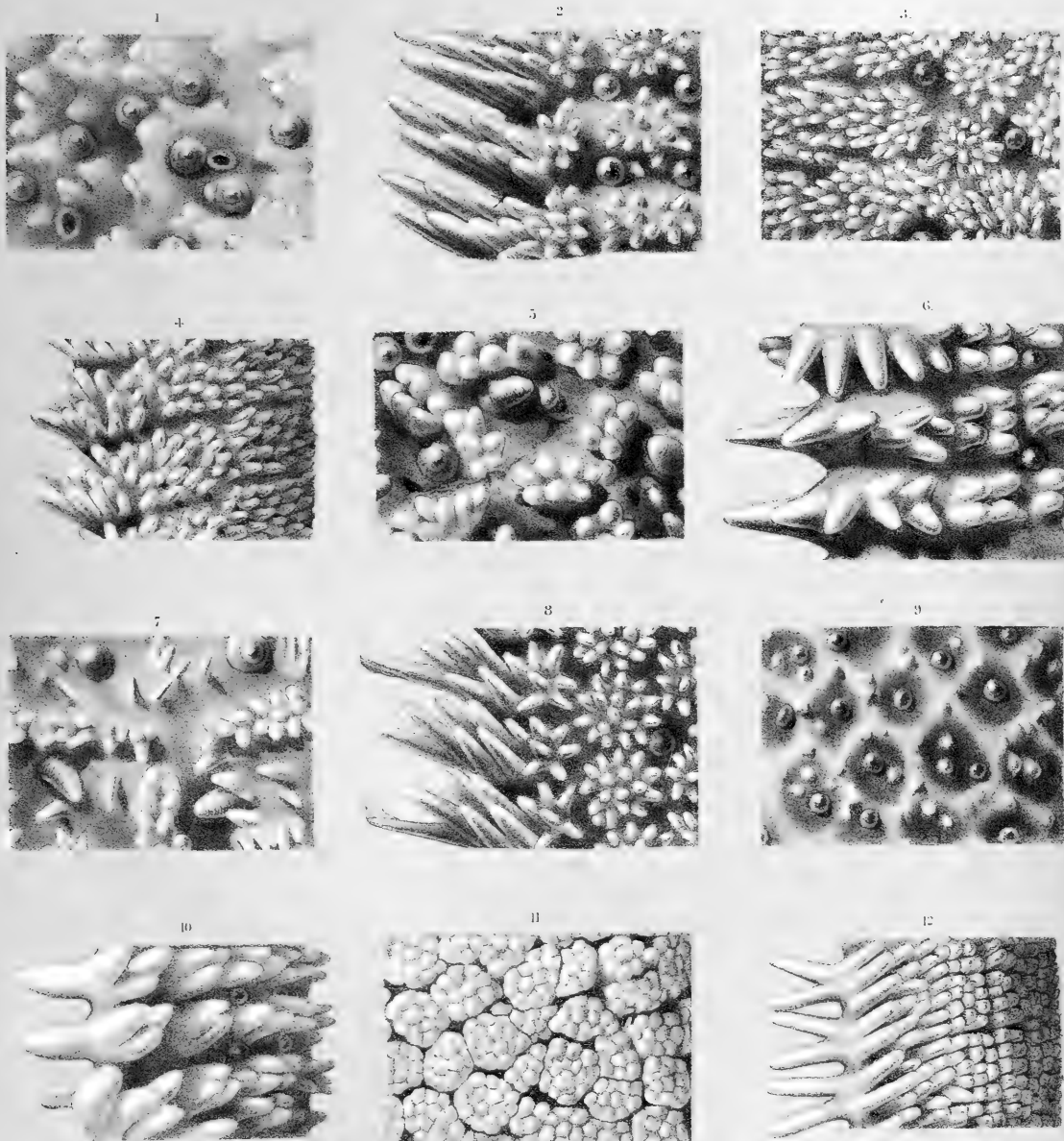
3-4. PERKNASTER FUSCUS, n.sp.

5-6. CRIBRELLA SIMPLEX, n.sp.

PLATE XCVIII.

PLATE XCVIII.

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Figs. 1, 2. <i>CRIBRELLA SUFFLATA</i> , n. sp.	549
Fig. 1. A portion of the abactinal surface ; magnified 12 diameters.	
Fig. 2. Adambulacral plates and adjacent portion of the actinal surface ; magnified 15 diameters.	
[For macroscopic figures of this species see Pl. XCVI. figs. 5, 6.]	
Figs. 3, 4. <i>CRIBRELLA COMPACTA</i> , n. sp.	543
Fig. 3. A portion of the abactinal surface ; magnified 35 diameters.	
Fig. 4. Adambulacral plates and adjacent portion of the actinal surface ; magnified 35 diameters.	
[For macroscopic figures of this species see Pl. XCVI. figs. 1, 2.]	
Figs. 5, 6. <i>CRIBRELLA OBESA</i> , n. sp.	544
Fig. 5. A portion of the abactinal surface ; magnified 15 diameters.	
Fig. 6. Adambulacral plates and adjacent portion of the actinal surface ; magnified 15 diameters.	
[For macroscopic figures of this species see Pl. XCVI. figs. 3, 4.]	
Figs. 7, 8. <i>CRIBRELLA PRÆSTANS</i> , n. sp.	545
Fig. 7. A portion of the abactinal surface ; magnified 16 diameters.	
Fig. 8. Adambulacral plates and adjacent portion of the actinal surface ; magnified 18 diameters.	
[For a macroscopic figure of this species see Pl. XCVI. fig. 7.]	
Figs. 9, 10. <i>CRIBRELLA SIMPLEX</i> , n. sp.	547
Fig. 9. A portion of the abactinal surface ; magnified 16 diameters.	
Fig. 10. Adambulacral plates and adjacent portion of the actinal surface ; magnified 20 diameters.	
[For macroscopic figures of this species see Pl. XCVII. figs. 5, 6.]	
Figs. 11, 12. <i>PERKNASTER DENSUS</i> , n. sp.	552
Fig. 11. A portion of the abactinal surface ; magnified 15 diameters.	
Fig. 12. Adambulacral plates and adjacent portion of the actinal surface ; magnified 10 diameters.	
[For macroscopic figures of this species see Pl. XCVII. figs. 1, 2.]	



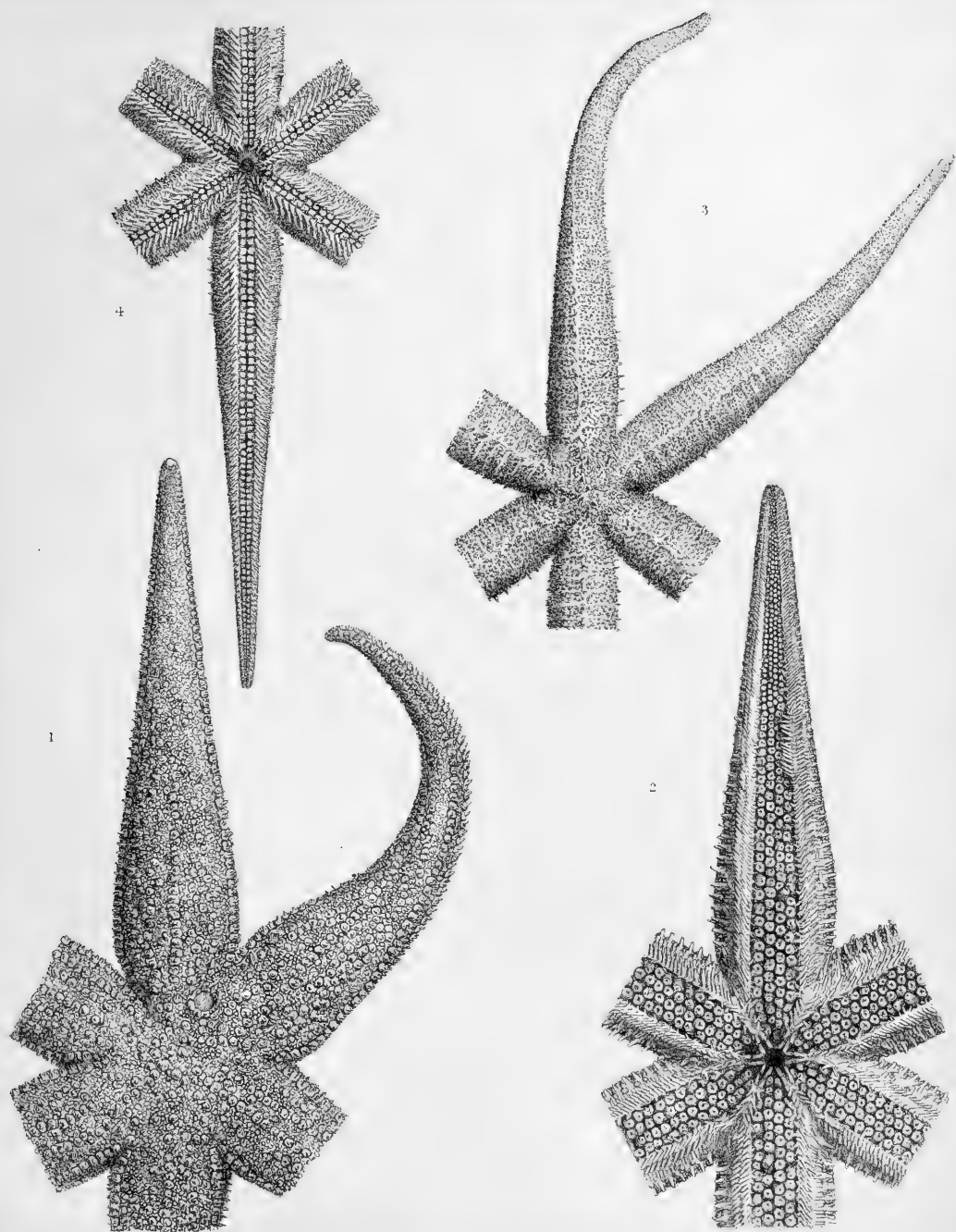
1-2. CRIBRELLA SUFFLATA, n. sp.
5-6. CRIBRELLA OBESA, n. sp.
9-10. CRIBRELLA SIMPLEX, n. sp.

3-4. CRIBRELLA COMPACTA, n. sp.
7-8. CRIBRELLA PRÆSTANS, n. sp.
11-12. PERKNASTER DENSUS, n. sp.

PLATE XCIX.

PLATE XCIX.

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Figs. 1, 2. <i>ASTERIAS VESICULOSA</i> , n. sp.	568
Fig. 1. Abactinal aspect; magnified $1\frac{1}{2}$ diameters.	
Fig. 2. Actinal aspect; magnified $1\frac{1}{2}$ diameters.	
[For magnified details of this species see Pl. CIII. figs. 9, 10.]	
Figs. 3, 4. <i>ASTERIAS (HYDRASTERIAS) OPHIDION</i> , n. sp.	581
Fig. 3. Abactinal aspect; magnified 2 diameters.	
Fig. 4. Actinal aspect; magnified 2 diameters.	
[For magnified details of this species see Pl. CIII. figs. 3, 4.]	



F. H. Michael del. et lith.

Minuten Press imp.

1-2. *ASTERIAS VESICULOSA*, n. sp.

3-4. *ASTERIAS (HYDRASTERIAS) OPHIDION*, n. sp.

PLATE C.

PLATE C.

Figs. 1-3. <i>STICHAETER POLYGRAMMUS</i> , n. sp.	Page 434
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Fig. 1. Abactinal aspect; magnified $1\frac{1}{2}$ diameters.

Fig. 2. Actinal aspect; magnified $1\frac{1}{2}$ diameters.

Fig. 3. Profile view of a ray; magnified $1\frac{1}{2}$ diameters.

[For magnified details of this species see Pl. CIII. figs. 5, 6.]

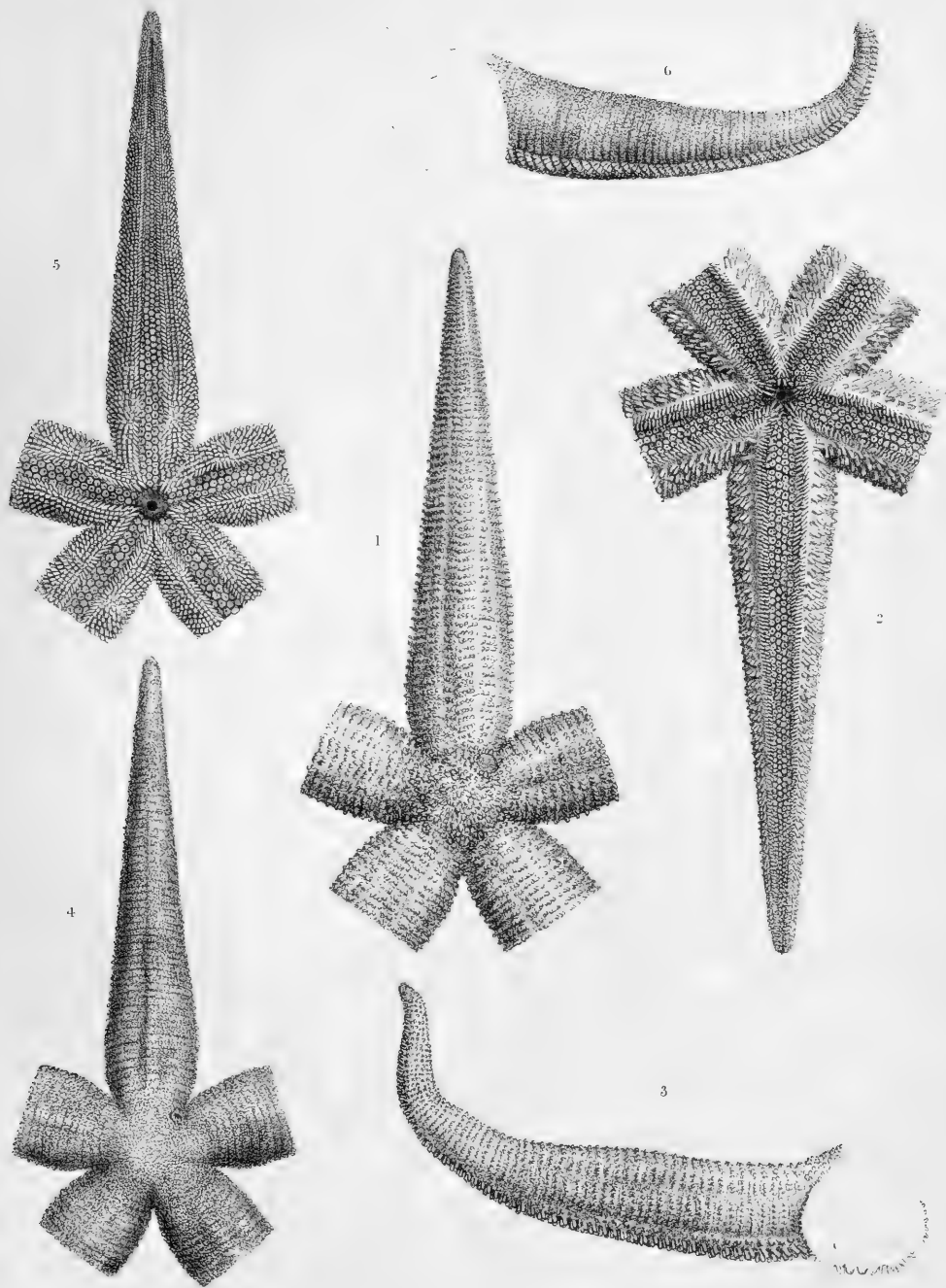
Figs. 4-6. <i>ASTERIAS (SMILASTERIAS) SCALPRIFERA</i> , n. sp.	578
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Fig. 4. Abactinal aspect; magnified $1\frac{1}{2}$ diameters.

Fig. 5. Actinal aspect; magnified $1\frac{1}{2}$ diameters.

Fig. 6. Profile view of a ray; magnified $1\frac{1}{2}$ diameters.

[For magnified details of this species see Pl. CIII. figs. 1, 2.]



F.H. Michael & W.H. Crother del et lith

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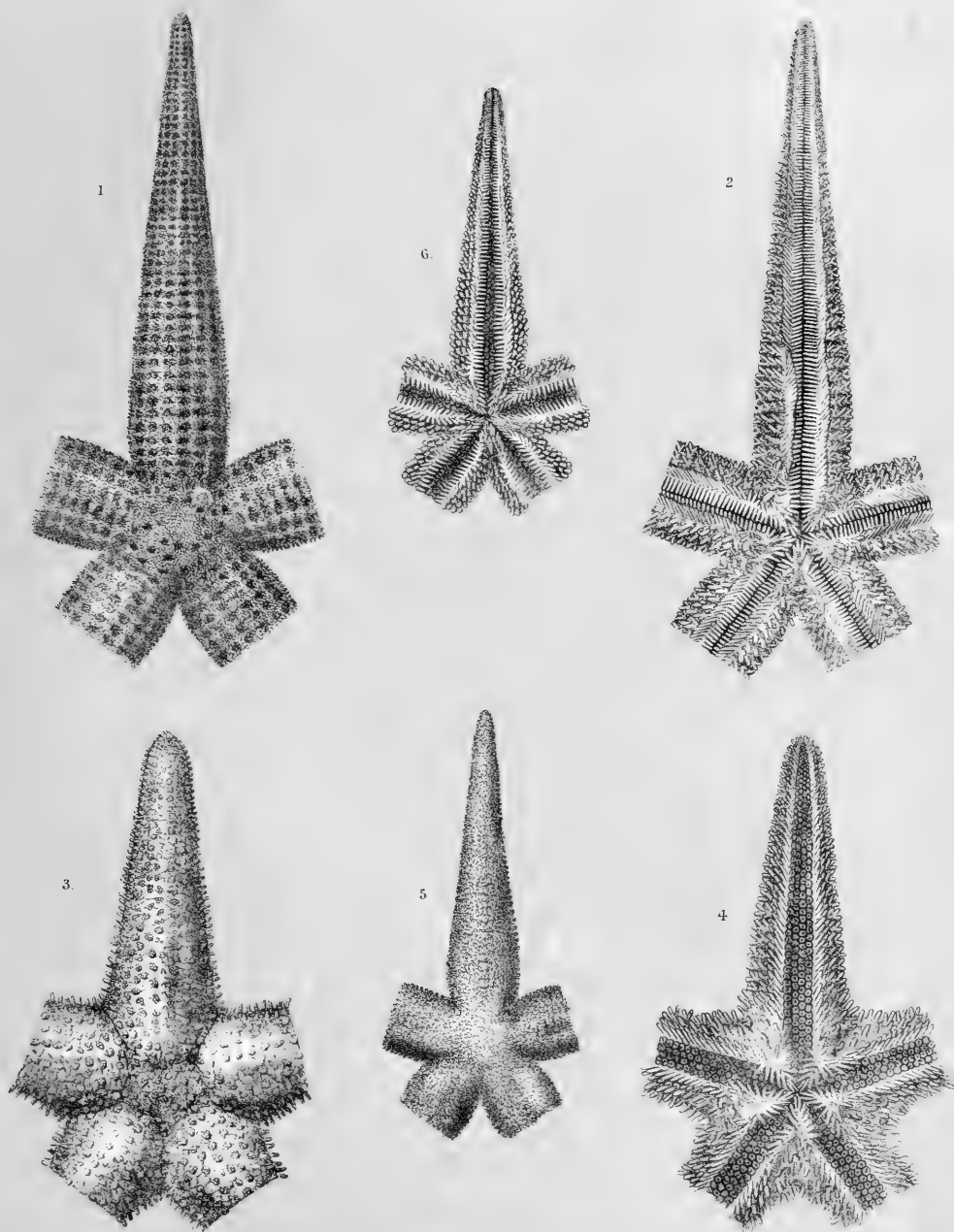
1-3. STICASTER POLYGRAMMUS, n. sp.

4-6. ASTERIAS (SMILASTERIAS) SCALPRIFERA, n. sp.

PLATE CI.

PLATE CL.

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Figs. 1, 2. <i>STICHAETER FELIPES</i> , n. sp.	433
Fig. 1. Abactinal aspect ; magnified $1\frac{1}{2}$ diameters.	
Fig. 2. Actinal aspect ; magnified $1\frac{1}{2}$ diameters.	
[For magnified details of this species see Pl. CIII. figs. 7, 8.]	
Figs. 3, 4. <i>CALVASTERIAS STOLIDOTA</i> , n. sp.	590
Fig. 3. Abactinal aspect ; magnified $1\frac{1}{2}$ diameters.	
Fig. 4. Actinal aspect ; magnified $1\frac{1}{2}$ diameters.	
[For magnified details of this species see Pl. CIII. figs. 11, 12.]	
Figs. 5, 6. <i>ASTERIAS (SMILASTERIAS) TRIREMIS</i> , n. sp.	579
Fig. 5. Abactinal aspect ; magnified 2 diameters.	
Fig. 6. Actinal aspect ; magnified 2 diameters.	
[For magnified details of this species see Pl. CII. figs. 5, 6.]	



H. Crowther del et lith

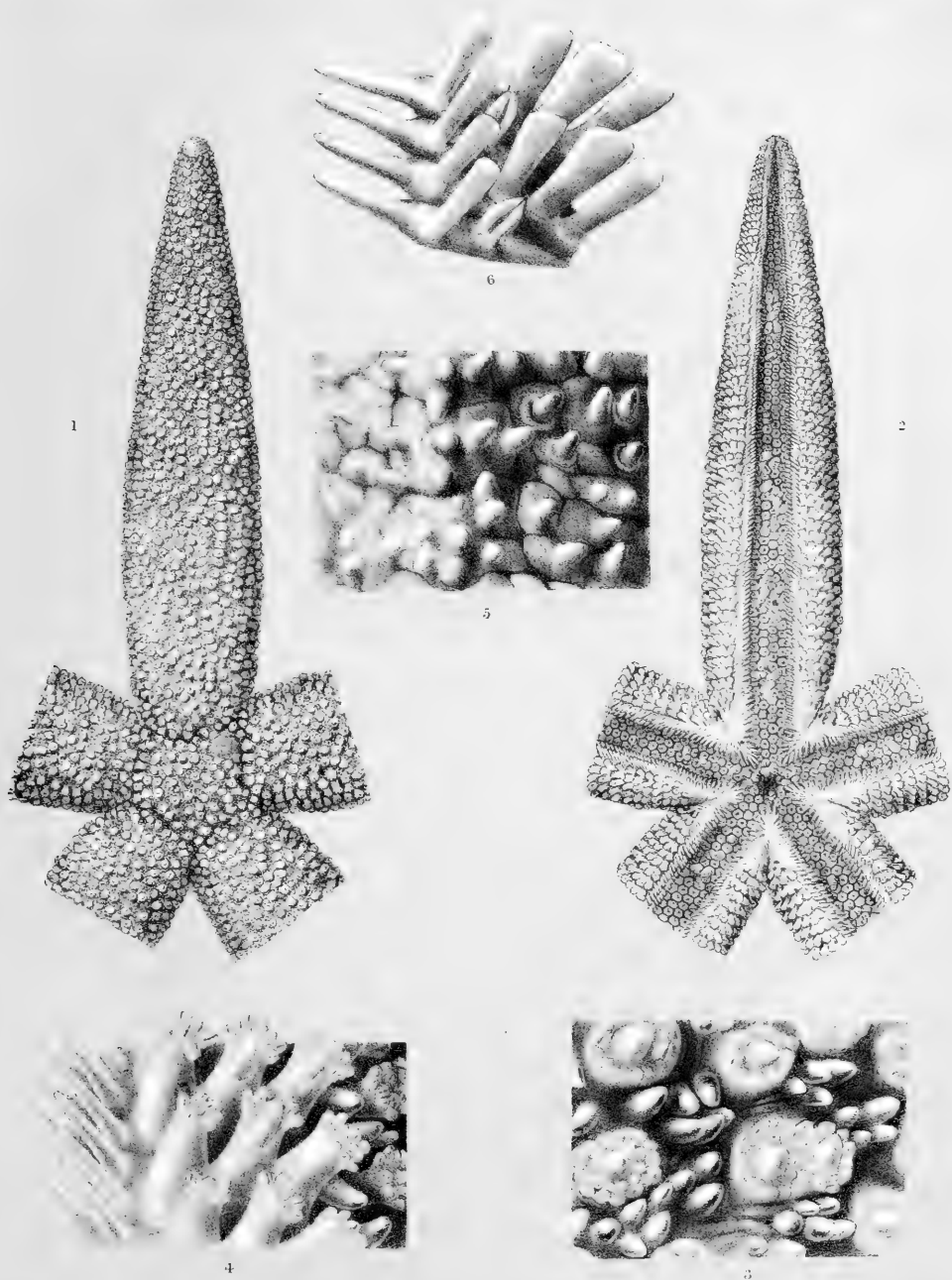
Monterey, Cal., U.S.A.

1-2. *STICHAETER FELIPES*, n. sp. 3-4. *CALVASTERIAS STOLIDOTA*, n. sp.
5-6. *ASTERIAS (SMILASTERIAS) TRIREMIS*, n. sp.

PLATE CII.

PLATE CII.

	Page
Figs. 1-4. <i>ASTERIAS TORQUATA</i> , n. sp.	570
Fig. 1. Abactinal aspect ; magnified $1\frac{1}{2}$ diameters.	
Fig. 2. Actinal aspect ; magnified $1\frac{1}{2}$ diameters.	
Fig. 3. A portion of the abactinal surface ; magnified 12 diameters.	
Fig. 4. Adambulacral plates and adjacent portion of the actinal surface ; magnified 10 diameters.	
Figs. 5, 6. <i>ASTERIAS (SMILASTERIAS) TRIREMIS</i> , n. sp.	579
Fig. 5. A portion of the abactinal surface ; magnified 20 diameters.	
Fig. 6. Adambulacral plates and adjacent portion of the actinal surface ; magnified 20 diameters.	
[For macroscopic figures of this species see Pl. CI. figs. 5,-6.]	



1-4. *ASTERIAS TORQUATA*, n. sp.

5-6. *ASTERIAS (SMILASTERIAS) TRIREMIS*, n. sp.

PLATE CIII.

PLATE CIII.

	Page
Figs. 1, 2. <i>ASTERIAS (SMILASTERIAS) SCALPRIFERA</i> , n. sp.	578
Fig. 1. A portion of the abactinal surface ; magnified 15 diameters.	
Fig. 2. Adambulacral plates and adjacent portion of the actinal surface ; magnified 15 diameters.	
[For macroscopic figures of this species see Pl. C. figs. 4-6.]	
Figs. 3, 4. <i>ASTERIAS (HYDRASTERIAS) OPHIDION</i> , n. sp.	581
Fig. 3. A portion of the abactinal surface ; magnified 12 diameters.	
Fig. 4. Adambulacral plates and adjacent portion of the actinal surface ; magnified 14 diameters.	
[For macroscopic figures of this species see Pl. XCIX. figs. 3, 4.]	
Figs. 5, 6. <i>STICHAETER POLYGRAMMUS</i> , n. sp.	434
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[For macroscopic figures of this species see Pl. CI. figs. 3, 4.]	

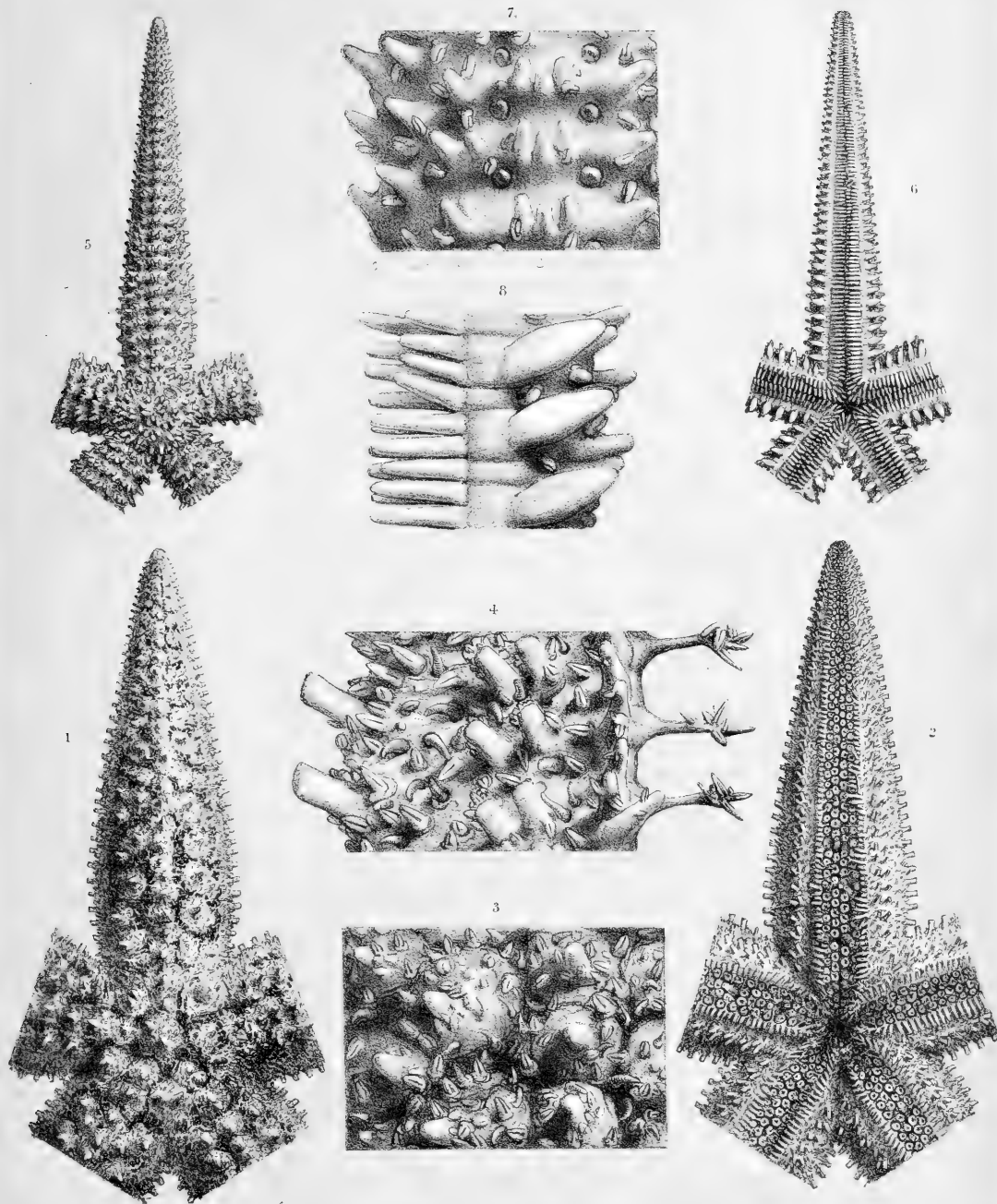


II-12. CALVASTERIAS STOLIDOTA, n sp

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PLATE CIV.

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Monter Eros. imp.

1-4. ASTERIAS VERSICOLOR, n. sp.

5-8. TARSASTER STOICHODES, n. sp.

PLATE CV.

PLATE CV.

Figs. 1-4. *ASTERIAS GLOMERATA*, n. sp. Page
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Fig. 1. Abactinal aspect; magnified $1\frac{1}{2}$ diameters.

Fig. 2. Actinal aspect; magnified $1\frac{1}{2}$ diameters.

Fig. 3. A portion of the abactinal surface; magnified 8 diameters.

Fig. 4. Adambulacral plates and adjacent portion of the actinal surface; magnified
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Figs. 5-7. *PEDICELLASTER HYPERNOTIUS*, n. sp. 558

Fig. 5. Abactinal aspect; magnified 3 diameters.

Fig. 6. A portion of the abactinal surface; magnified 20 diameters.

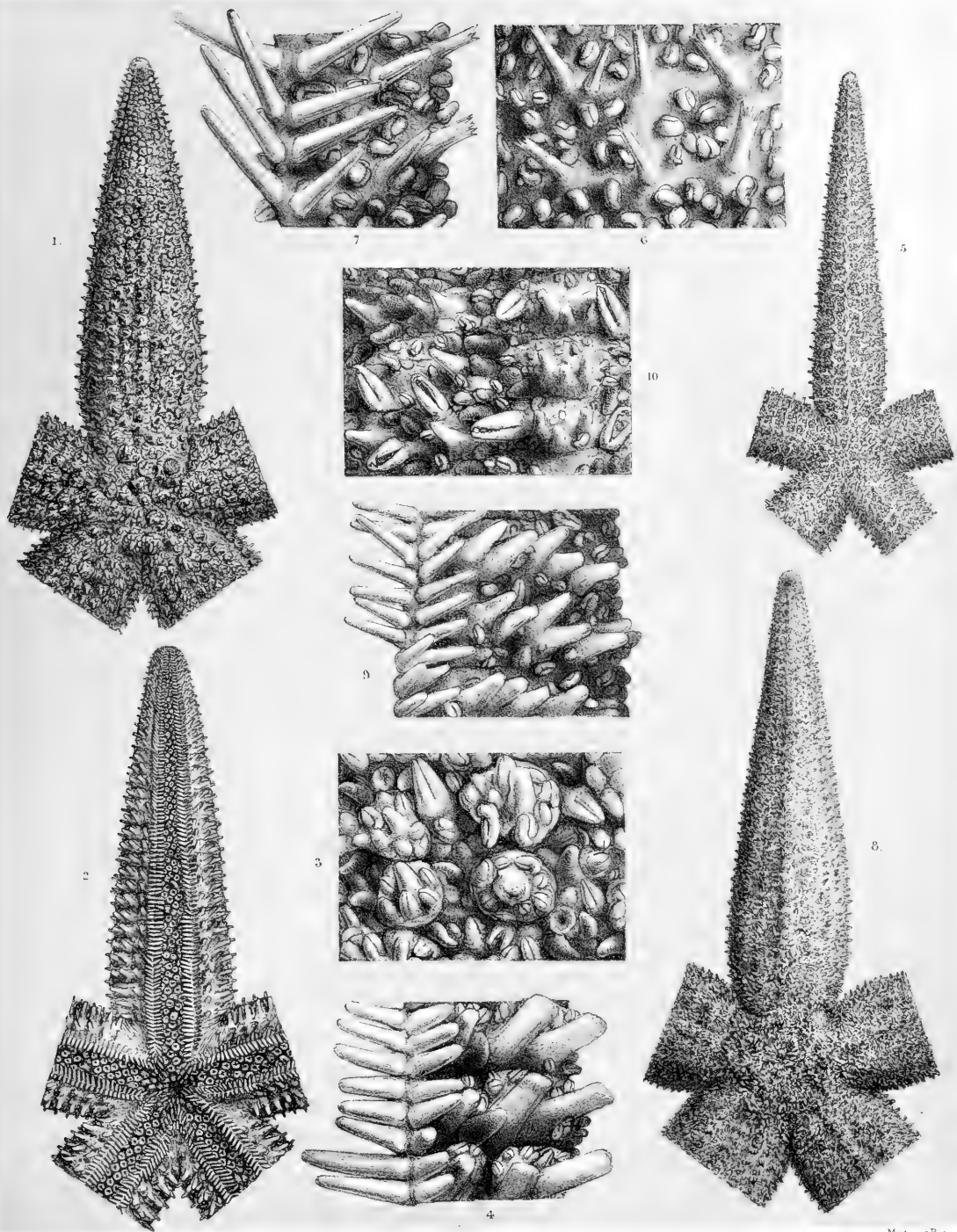
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Figs. 8-10. *ASTERIAS (COSMASTERIAS) TOMIDATA*, n. sp. 576

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Fig. 9. Adambulacral plates and adjacent portion of the actinal surface; magnified
8 diameters.

Fig. 10. A portion of the abactinal surface; magnified 8 diameters.



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Minterr. Bros. imp.

1-4. *ASTERIAS GLOMERATA*, n. sp.

5-7. *PEDICELLASTER HYPERNOTIUS*, n. sp.

8-10. *ASTERIAS (COSMASTERIAS) TOMIDATA*, n. sp.

PLATE CVI.

PLATE CVI.

Figs. 1-4. *ASTERIAS (STOLASTERIAS) STICHANTHA*, n. sp. Page 586

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Fig. 2. Actinal aspect ; magnified $1\frac{1}{2}$ diameters.

Fig. 3. A portion of the abactinal surface ; magnified 4 diameters.

Fig. 4. Adambulacral plates and adjacent portion of the actinal surface ; magnified 4 diameters.

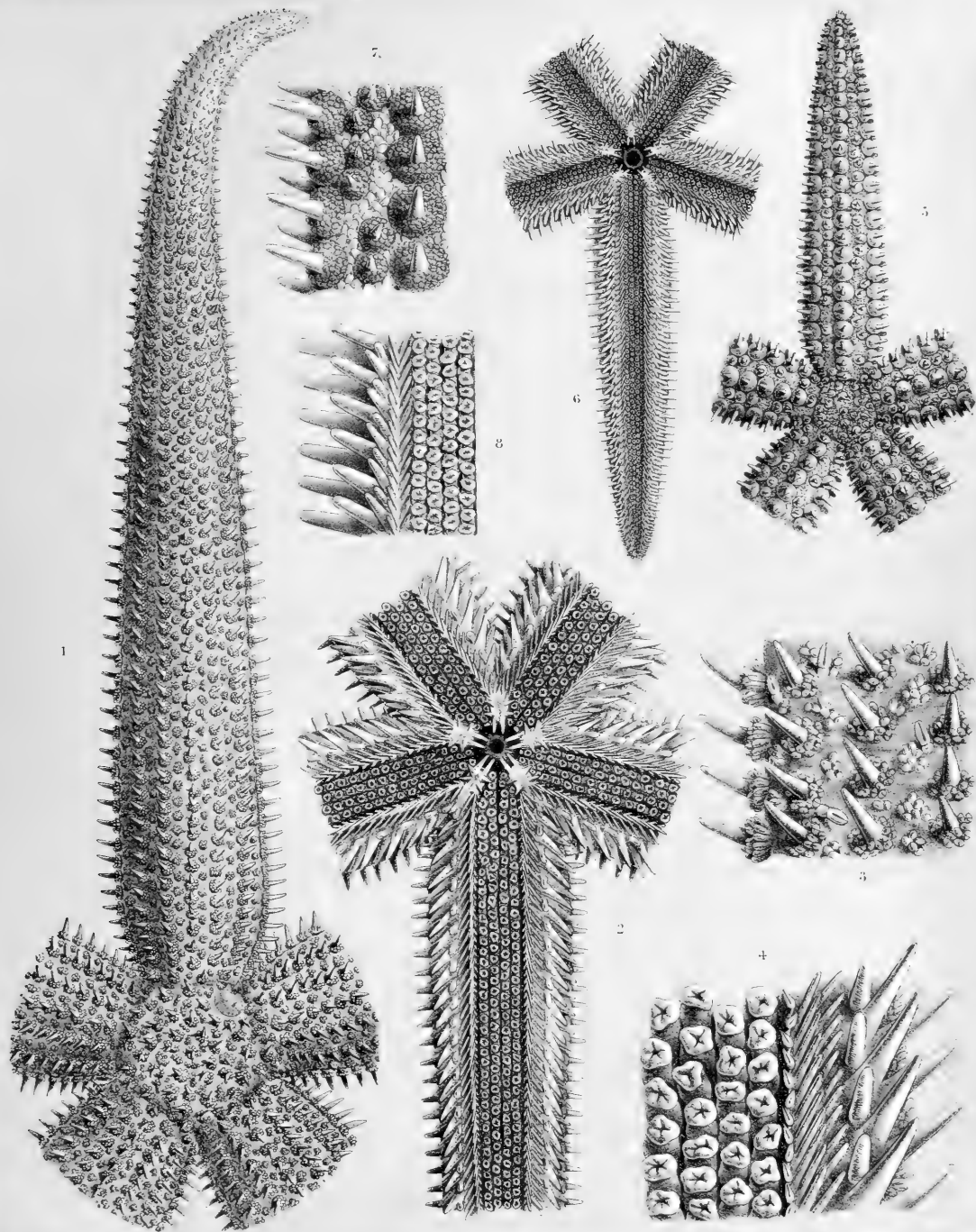
Figs. 5-8. *ASTERIAS (STOLASTERIAS) EUSTYLA*, n. sp. 587

Fig. 5. Abactinal aspect ; magnified $1\frac{1}{2}$ diameters.

Fig. 6. Actinal aspect ; magnified $1\frac{1}{2}$ diameters.

Fig. 7. A portion of the abactinal surface ; magnified 4 diameters.

Fig. 8. Adambulacral plates and adjacent portion of the actinal surface ; magnified 4 diameters.



Mintern Erp. 186. 67. 186.

1-4. ASTERIAS (STOLASTERIAS) STICHANTHA, n. sp.

5-8. ASTERIAS (STOLASTERIAS) EUSTYLA, n. sp.

PLATE CVII.

PLATE CVII.

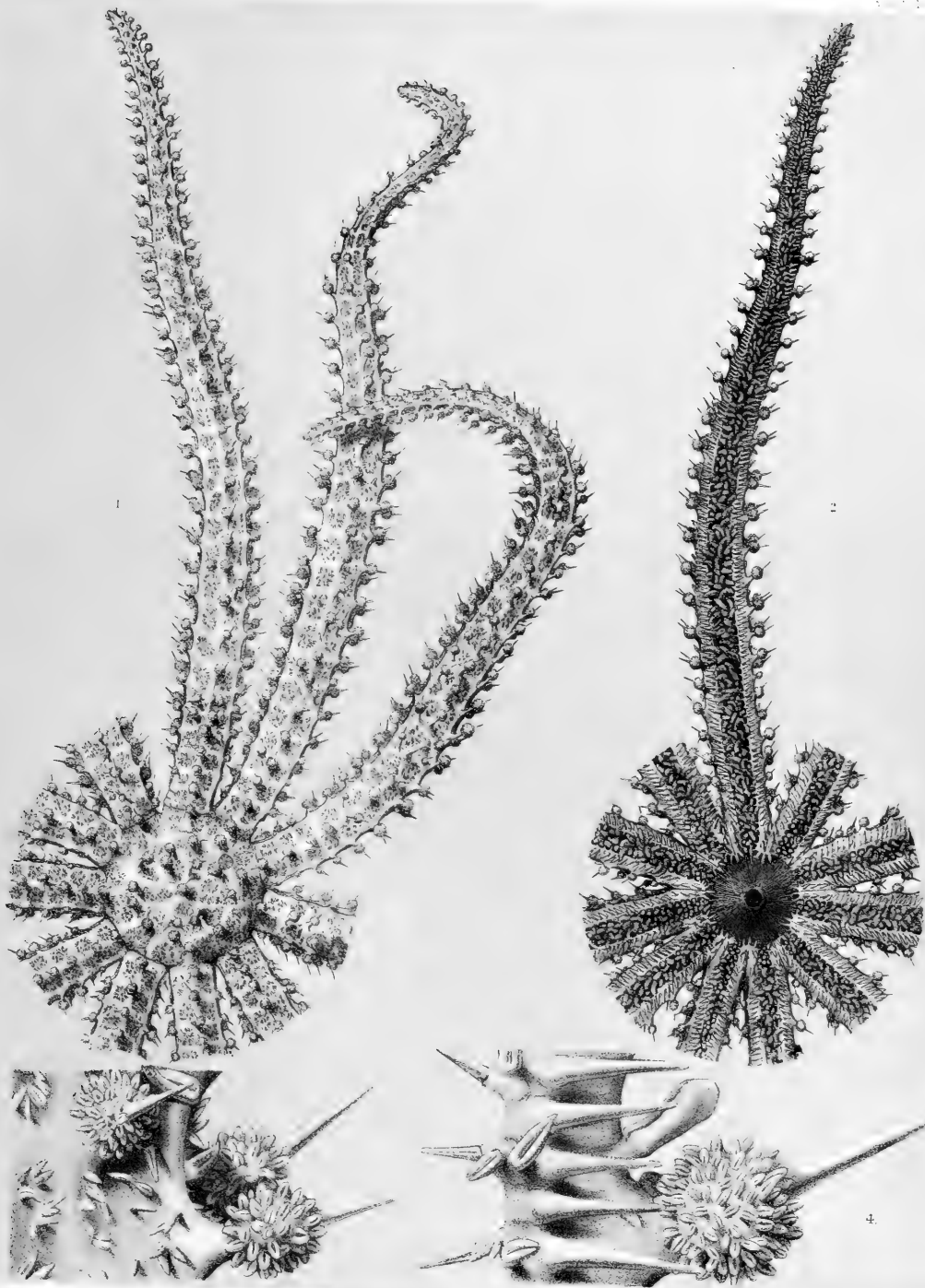
Figs. 1-4. *ASTERIAS (STOLASTERIAS) VOLSELLATA*, n. sp. . . . Page 584

Fig. 1. Abactinal aspect; magnified $1\frac{1}{2}$ diameters.

Fig. 2. Actinal aspect; magnified $1\frac{1}{2}$ diameters.

Fig. 3. A portion of the abactinal surface; magnified 9 diameters.

Fig. 4. Adambulacral plates and adjacent portion of the actinal surface; magnified 15 diameters.



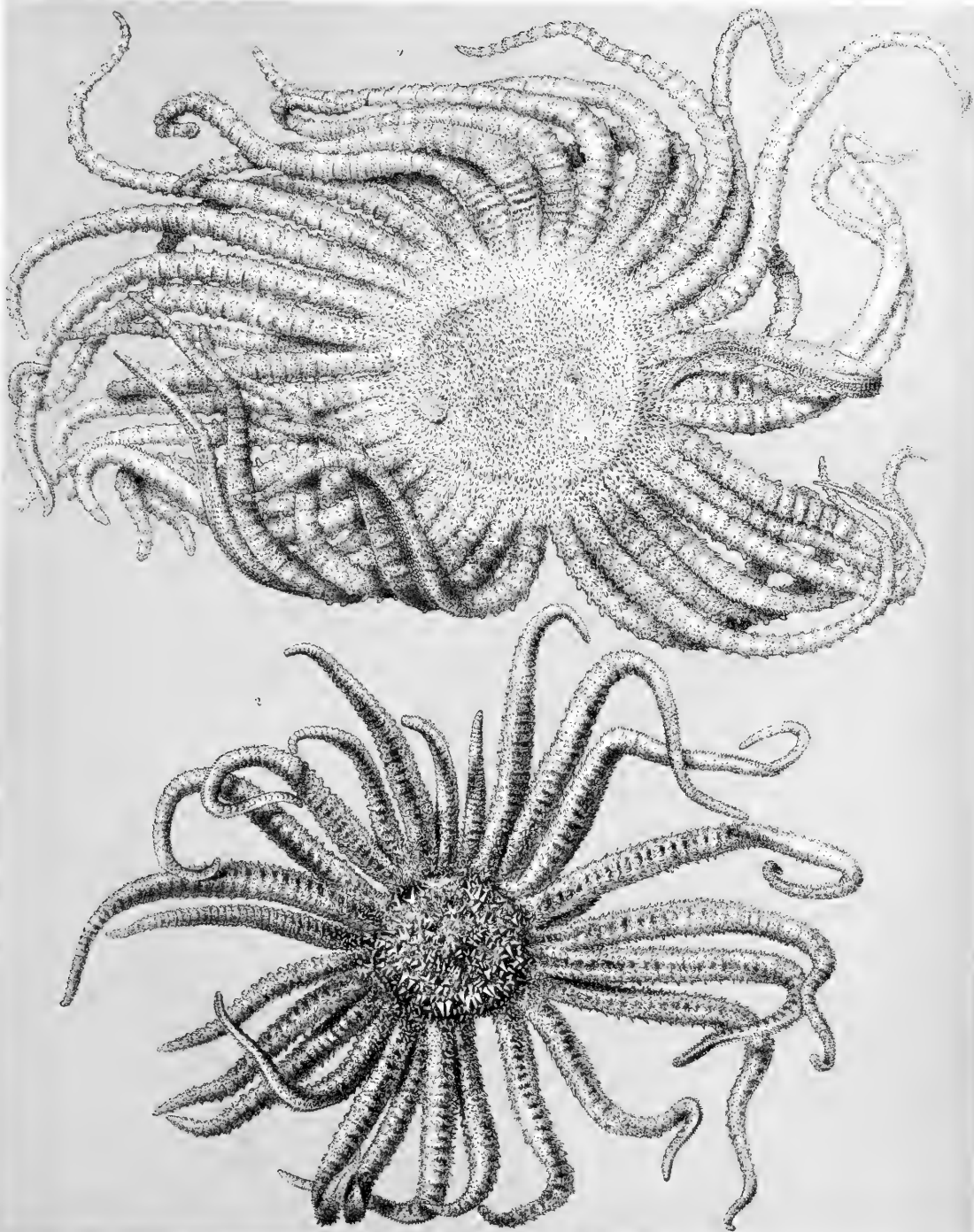
ASTERIAS (STOLASTERIAS) VOLSELLATA, n. sp.

Monterey, Cal.

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PLATE CVIII.

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Fig. 2. LABIDIASTER RADIOSUS (Lovén), Lütken,	595
Fig. 2. Abactinal aspect ; natural size.	



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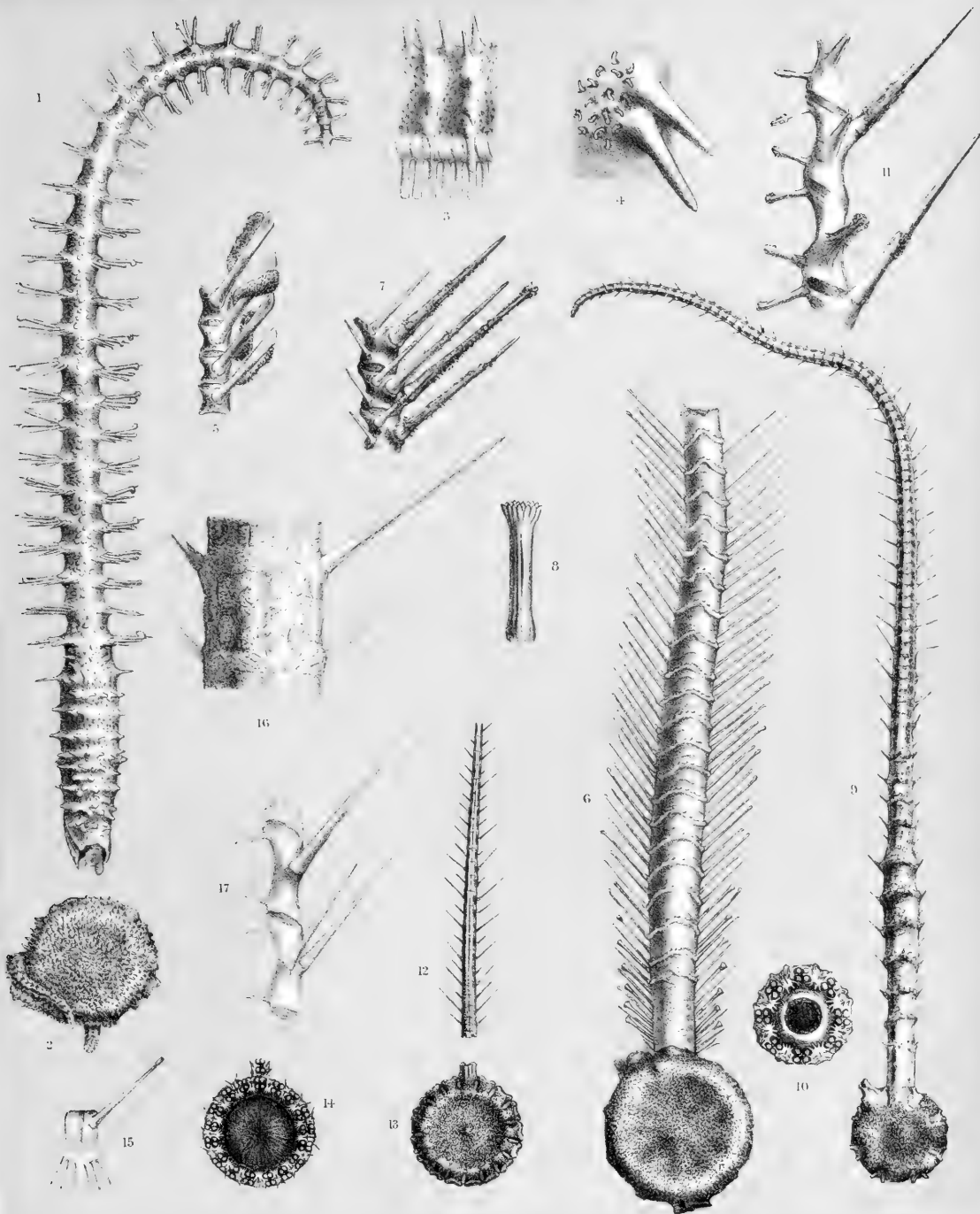
Hanhart imp.

1. LABIDASTER ANNULATUS, n. sp. 2. LABIDASTER RADIOSUS, (Lovén), Lütken

PLATE CIX.

PLATE CIX.

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F H Michael & W H Crowther del et lith

Plate 1

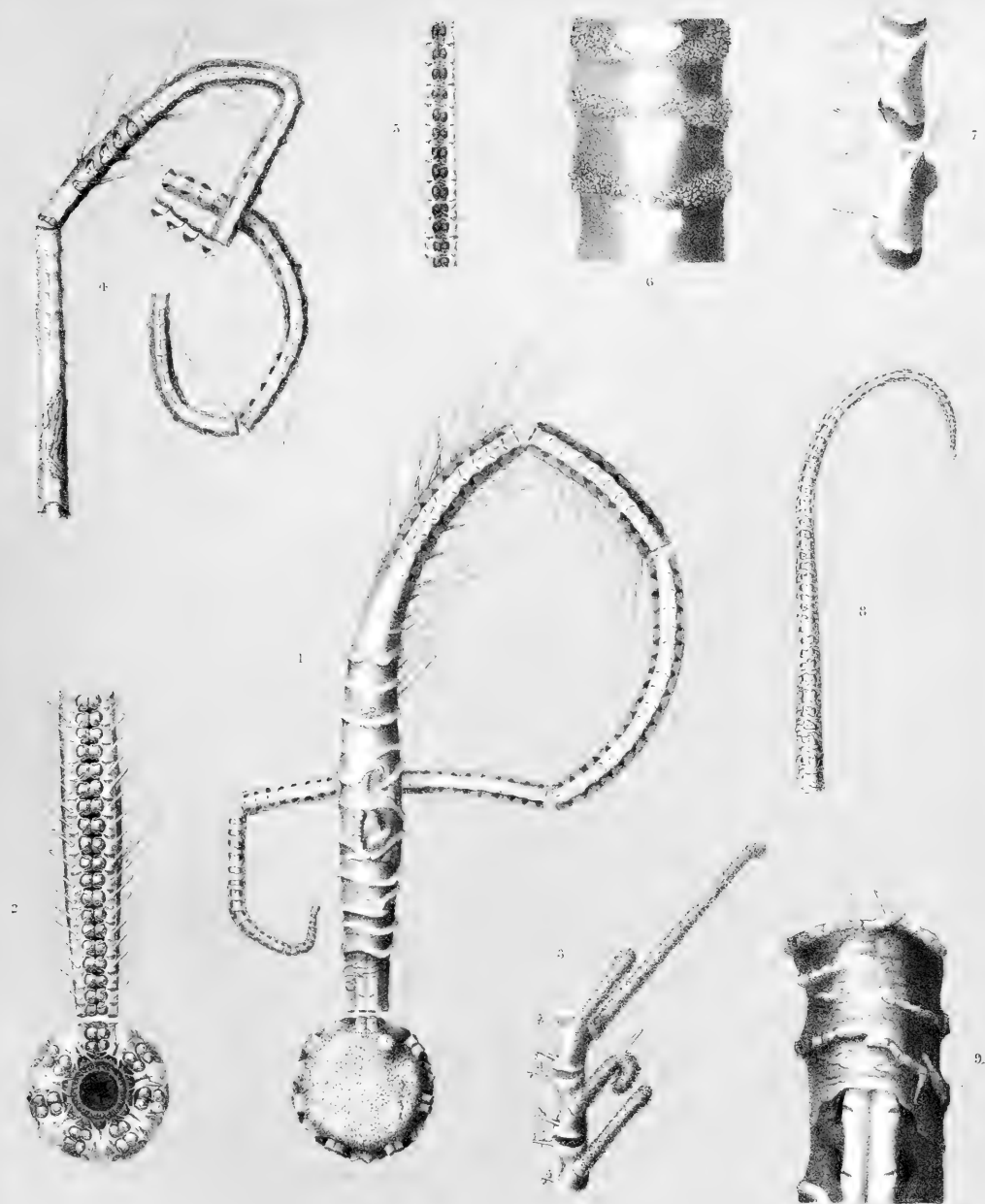
1-5. *ODINIA PANDINA*, n. sp.
9-11. *BRISINGA VERTICILLATA*, n. sp.

6-8. *BRISINGA CRICOPHORA*, n. sp.
12-17. *FREYELLA POLYCHEMA*, n. sp.

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PLATE CX.

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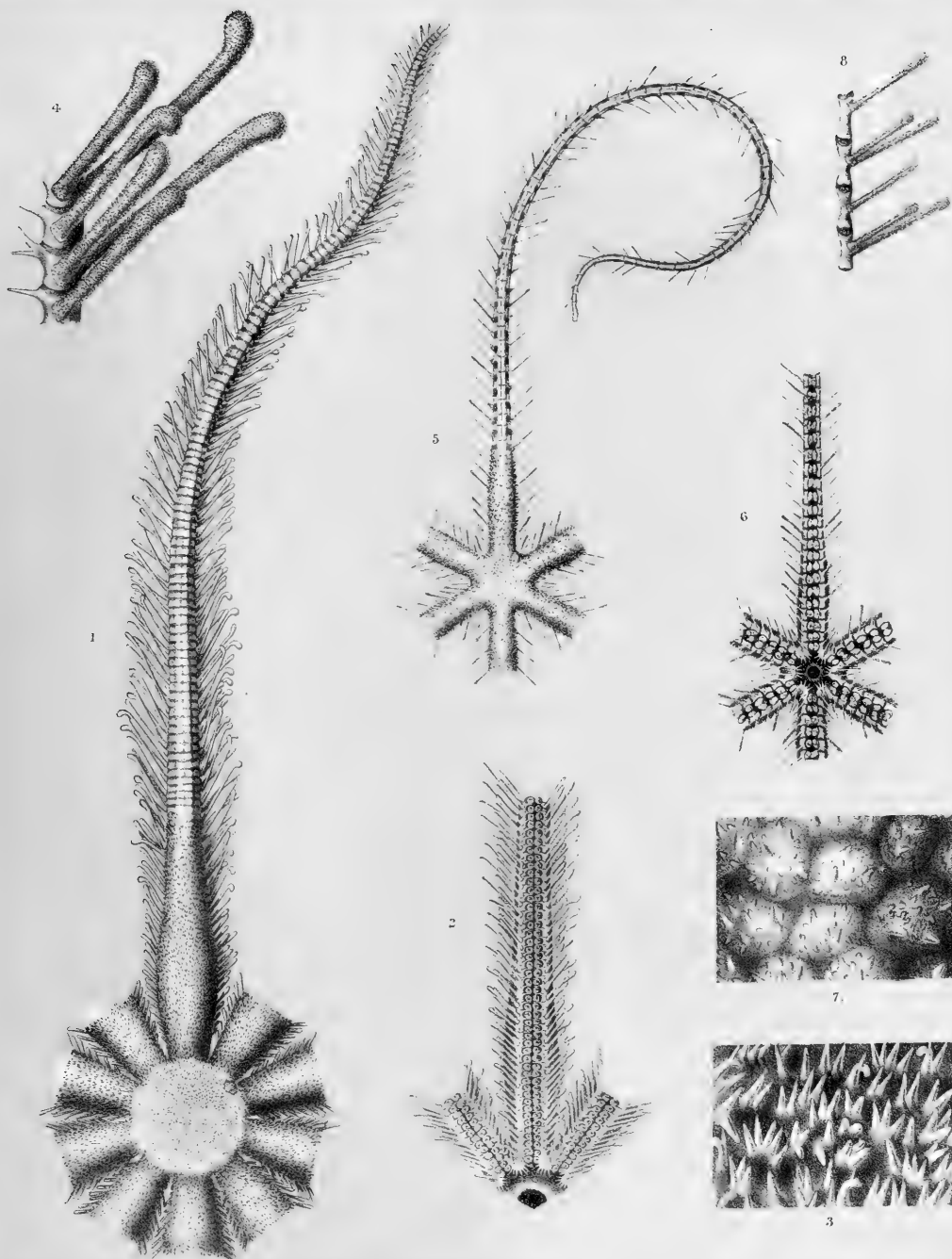
Western End. Ang.

1-3. *BRISINGA ARMILLATA*, n. sp. 4-7. *BRISINGA DISCINCTA*, n. sp.
8-9. *BRISINGA MEMBRANACEA*, n. sp.

PLATE CXI.

PLATE CXI.

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1-4. FREYELLA PENNATA, n sp.

5-8. FREYELLA BENTHOPHILA, n sp.

PLATE CXII.

PLATE CXII.

Figs. 1-5. FREYELLA ECHINATA, n. sp.	Page
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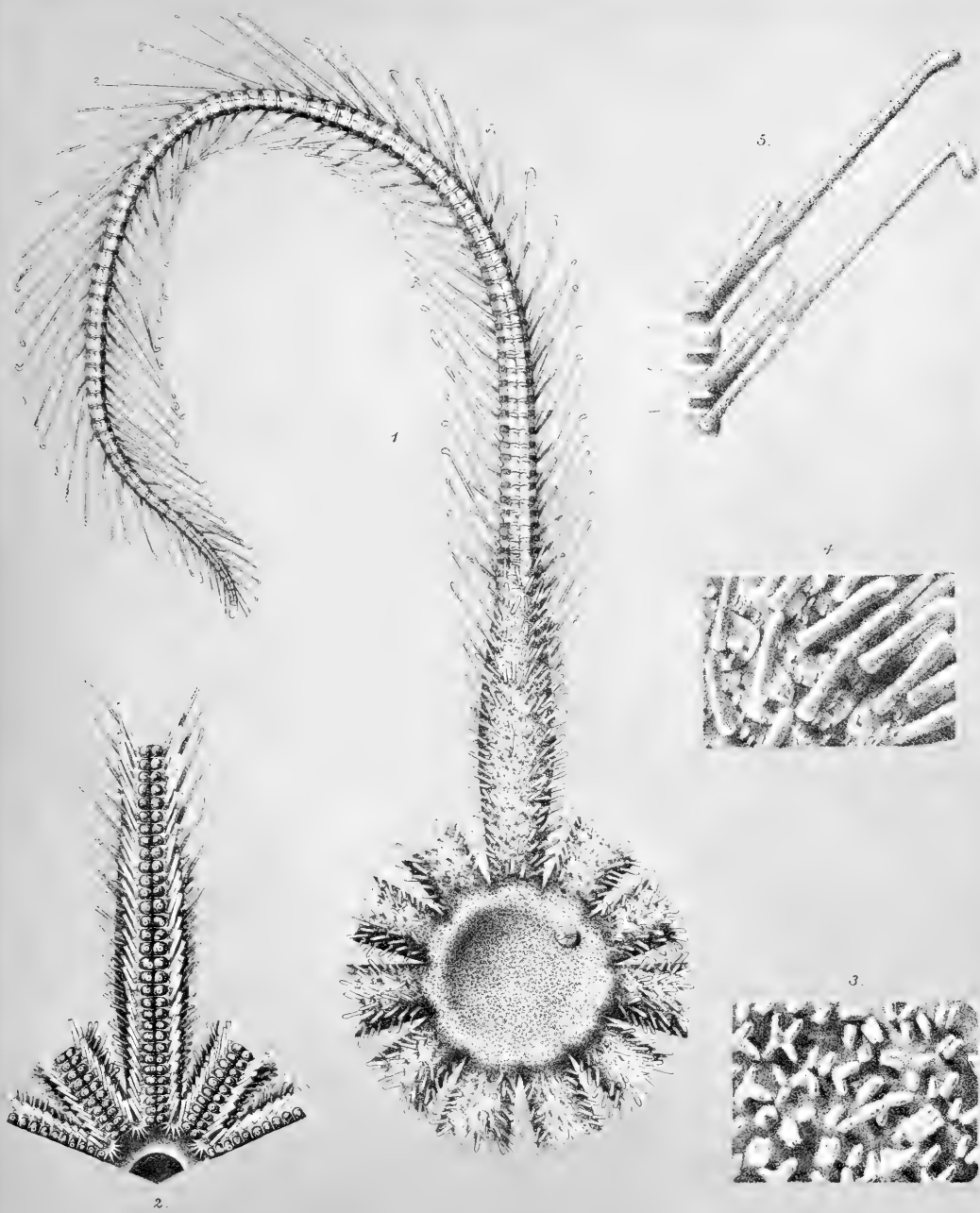
Fig. 1. Abactinal aspect; magnified $1\frac{1}{2}$ diameters.

Fig. 2. Actinal aspect; magnified $1\frac{1}{2}$ diameters.

Fig. 3. A portion of the abactinal surface of the disk; magnified 15 diameters.

Fig. 4. A portion of the abactinal surface of an ovarian region; magnified 5 diameters.

Fig. 5. Adambulacral plates; magnified 4 diameters.



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Humbert 109

FREYELLA ECHINATA, n. sp.

PLATE CXIII.

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Figs. 1-4. *FREYELLA FRAGILISSIMA*, n. sp. Page
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Fig. 1. Abactinal aspect; natural size.

Fig. 2. Actinal aspect; natural size.

Fig. 3. A portion of the abactinal surface of an ovarian region; magnified 10
diameters.

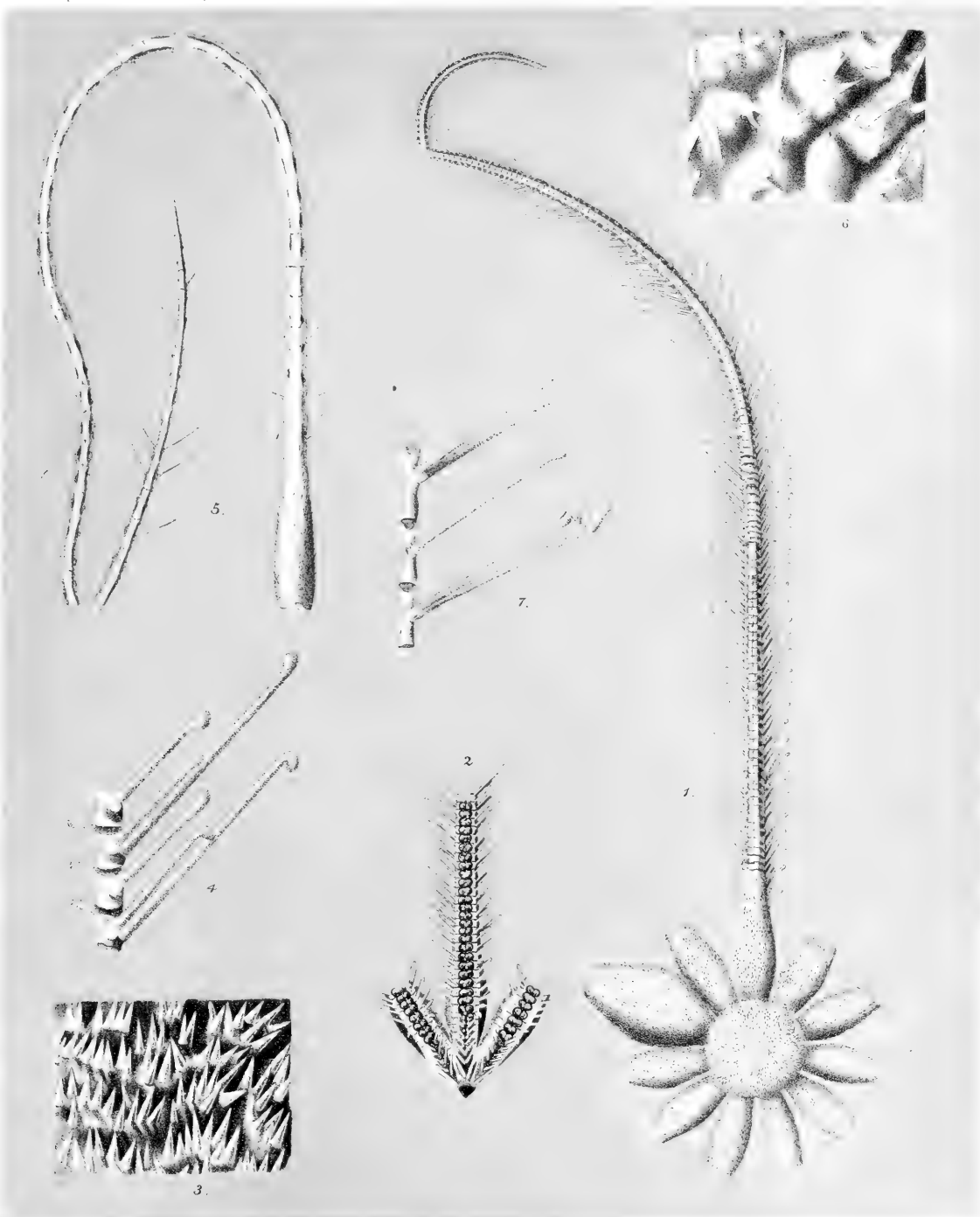
Fig. 4. Adambulacral plates; magnified 5 diameters.

Figs. 5-7. *FREYELLA ATTENUATA*, n. sp. 645

Fig. 5. Abactinal aspect of a ray; magnified 2 diameters.

Fig. 6. A portion of the abactinal surface of an ovarian region; magnified 16
diameters.

Fig. 7. Adambulacral plates; magnified 4 diameters.



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Hanhart imp.

1-4. *FREYELLA FRAGILISSIMA*, n. sp. 5-7. *FREYELLA ATTENUATA*, n. sp.

PLATE CXIV.

PLATE CXIV.

Figs. 1-4. FREYELLA BRACTEATA, n. sp.	Page
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Fig. 1. Abactinal aspect; natural size.

Fig. 2. Actinal aspect; natural size.

Fig. 3. A portion of the abactinal surface of an ovarian region; magnified 10 diameters.

Fig. 4. Adambulacral plates; magnified 5 diameters.

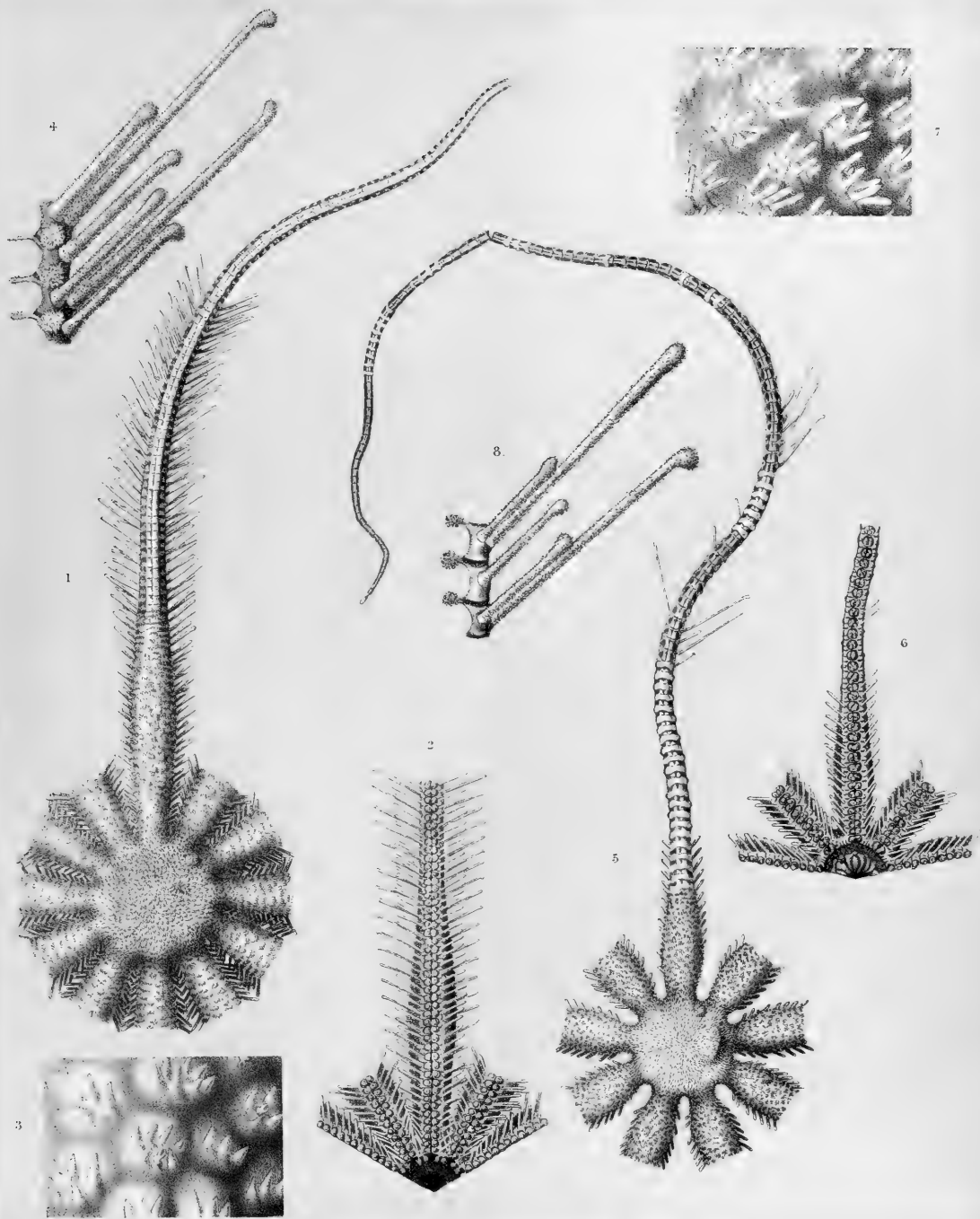
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Fig. 5. Abactinal aspect; natural size.

Fig. 6. Actinal aspect; natural size.

Fig. 7. A portion of the abactinal surface of an ovarian region; magnified 12 diameters.

Fig. 8. Adambulacral plates; magnified 4 diameters.



W. H. Crowther del et lith.

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1-4. FREYELLA BRACTEATA, n. sp. 5-8. FREYELLA HEROÏNA, n. sp.

PLATE CXV.

PLATE CXV.

Figs. 1-5. FREYELLA DIMORPHA, n. sp.	Page
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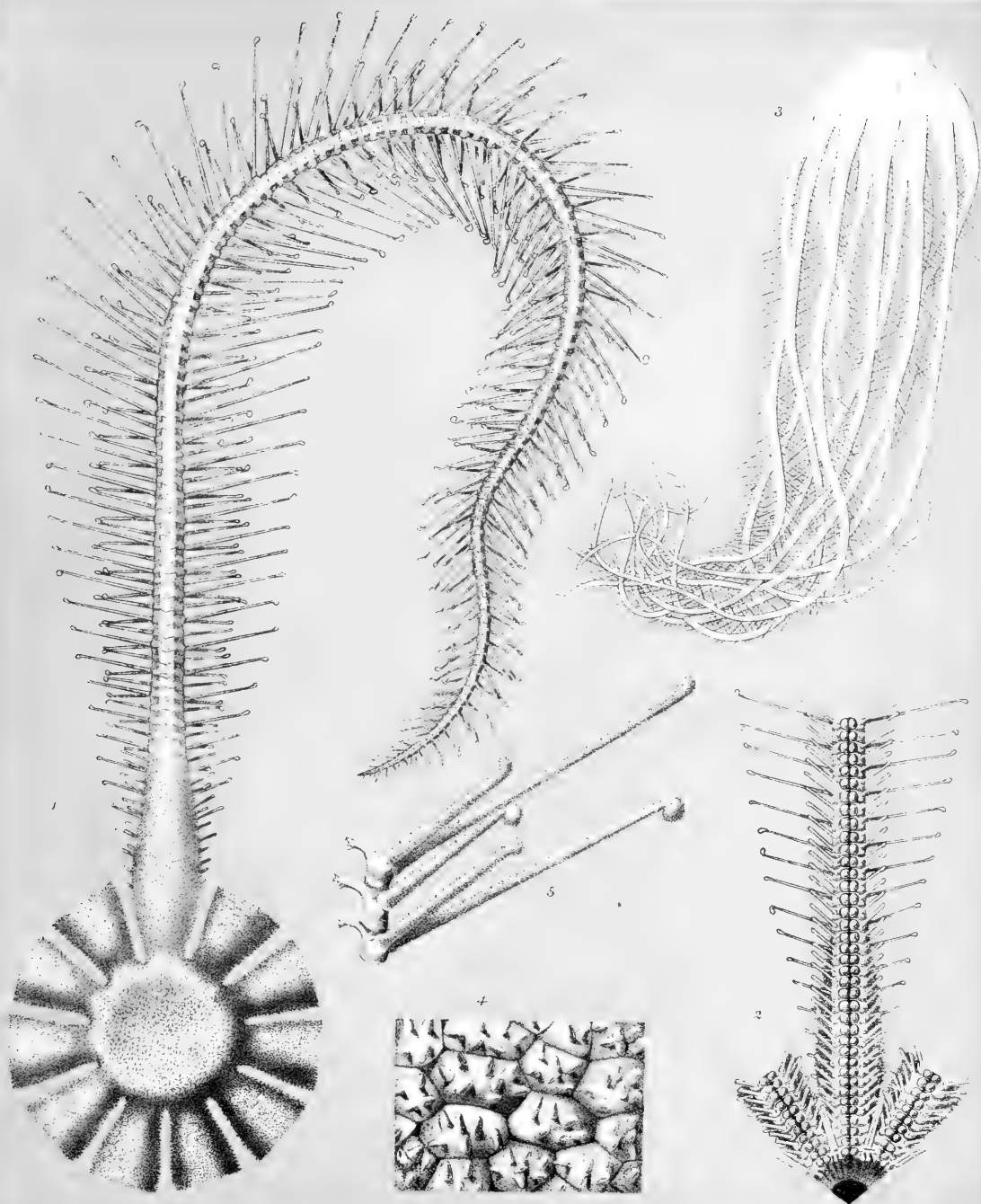
Fig. 1. Abactinal aspect; magnified $1\frac{1}{2}$ diameters.

Fig. 2. Actinal aspect; magnified $1\frac{1}{2}$ diameters.

Fig. 3. Profile view in outline; two-thirds of natural size.

Fig. 4. A portion of the abactinal surface of an ovarian region; magnified 10 diameters.

Fig. 5. Adambulacral plates; magnified 3 diameters.



W.H. Crozier del. Hillebrand sculp.

FREYELLA DIMORPHA, n. sp.

"Tata art. comp."

PLATE CXVI.

PLATE CXVI.

Figs. 1-3. FREYELLA REMEX, n. sp.

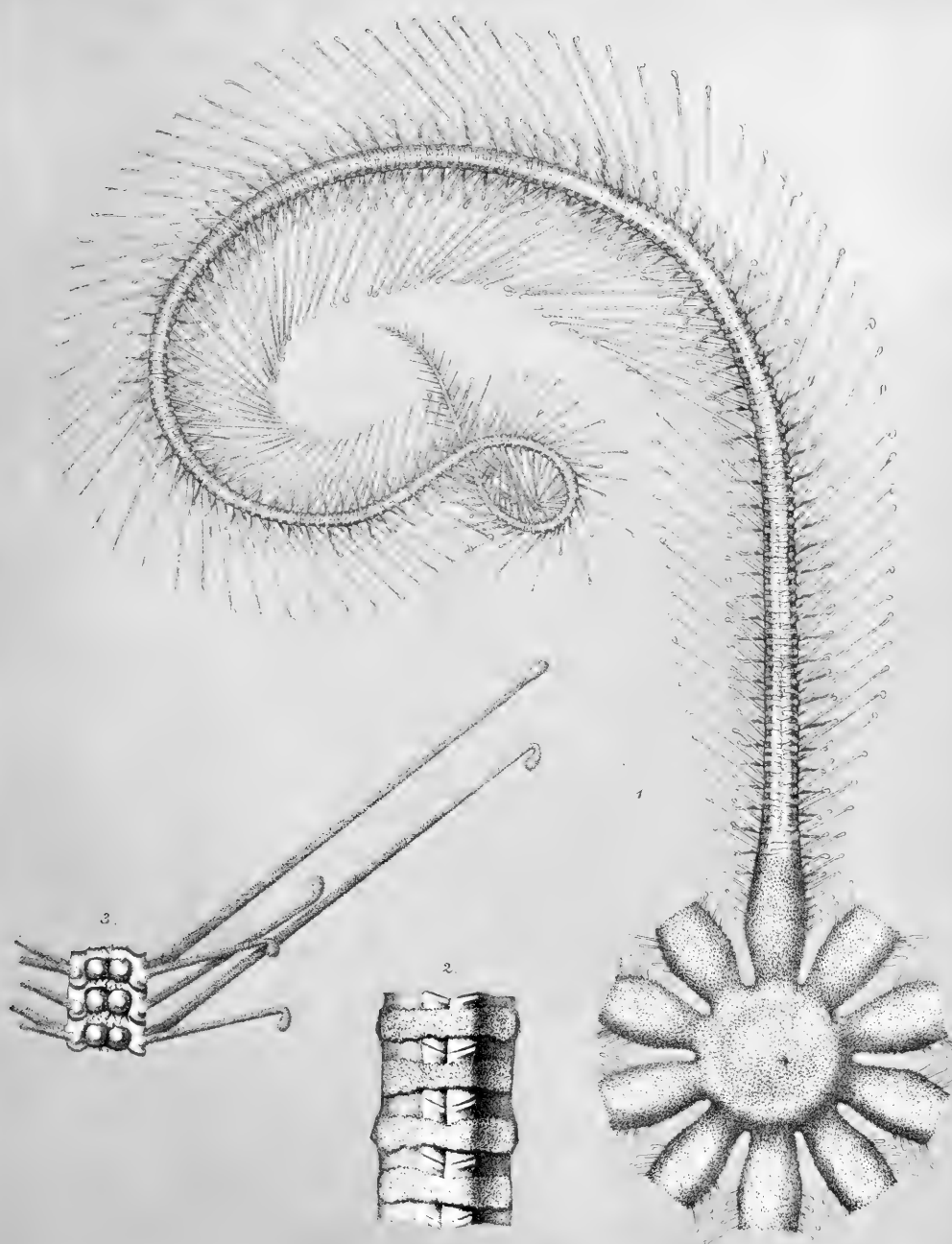
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Fig. 1. Abactinal aspect; natural size.

Fig. 2. Abactinal aspect of a portion of a ray; magnified 3 diameters.

Fig. 3. Actinal aspect of a portion of a ray; magnified 5 diameters.



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FREYELLA REMEX, n. sp.

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PLATE CXVII.

Figs. 1-3. FREYELLA TUBERCULATA, n. sp.	Page 638
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Fig. 1. Abactinal aspect; magnified $1\frac{1}{2}$ diameters.

Fig. 2. Actinal aspect; magnified $1\frac{1}{2}$ diameters.

Fig. 3. A portion of the abactinal surface of an ovarial region; magnified 12 diameters.

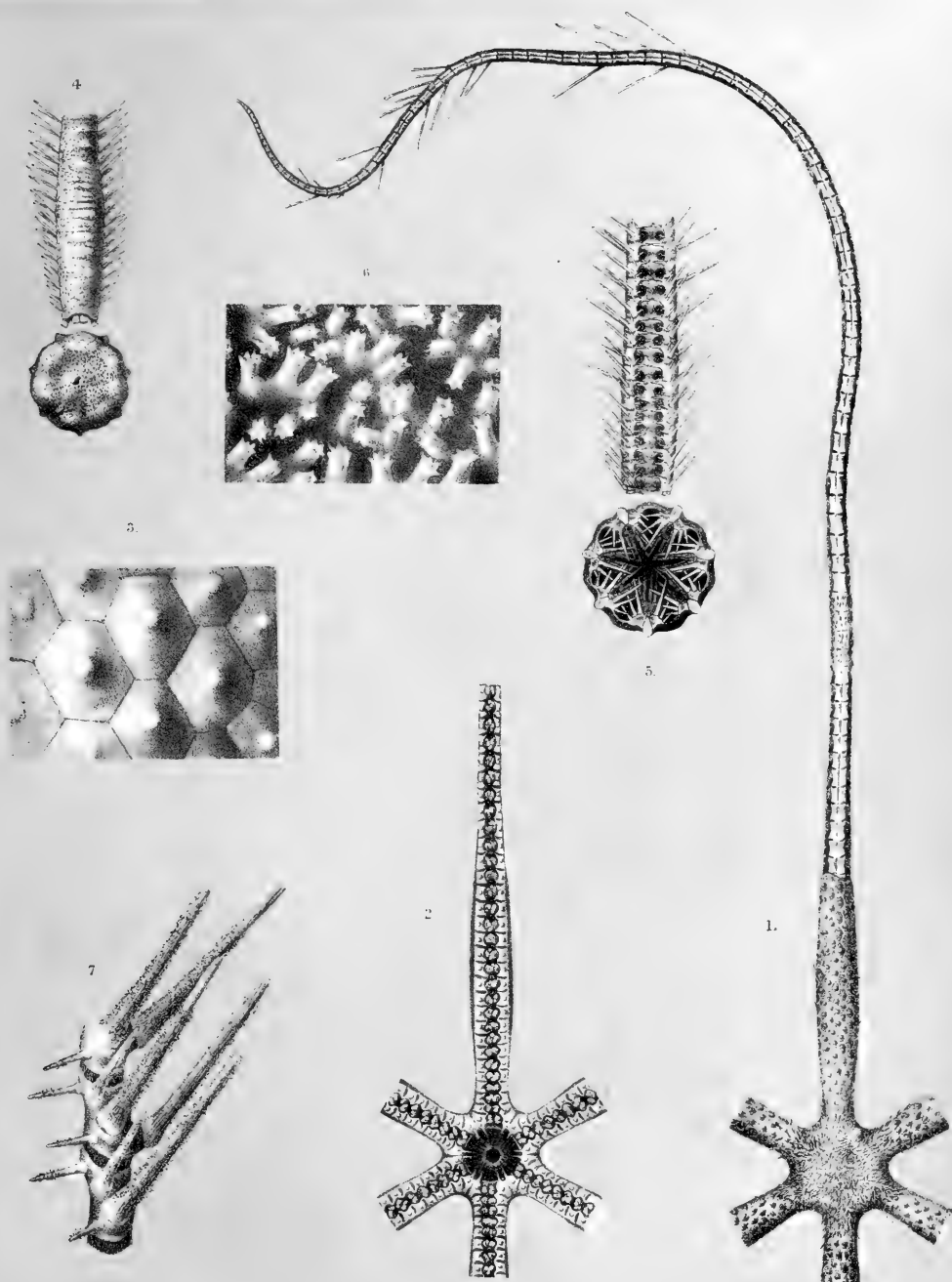
Figs. 4-7. COLPASTER SCUTIGERULA, n. sp.	648
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Fig. 4. Abactinal aspect of a portion of a ray and the disk; magnified $1\frac{1}{2}$ diameters.

Fig. 5. Actinal aspect of a portion of a ray and the disk; magnified 2 diameters.

Fig. 6. A portion of the abactinal surface of the disk; magnified 20 diameters.

Fig. 7. Adambulacral plates; magnified 10 diameters.



W.H. Croucher del et lith

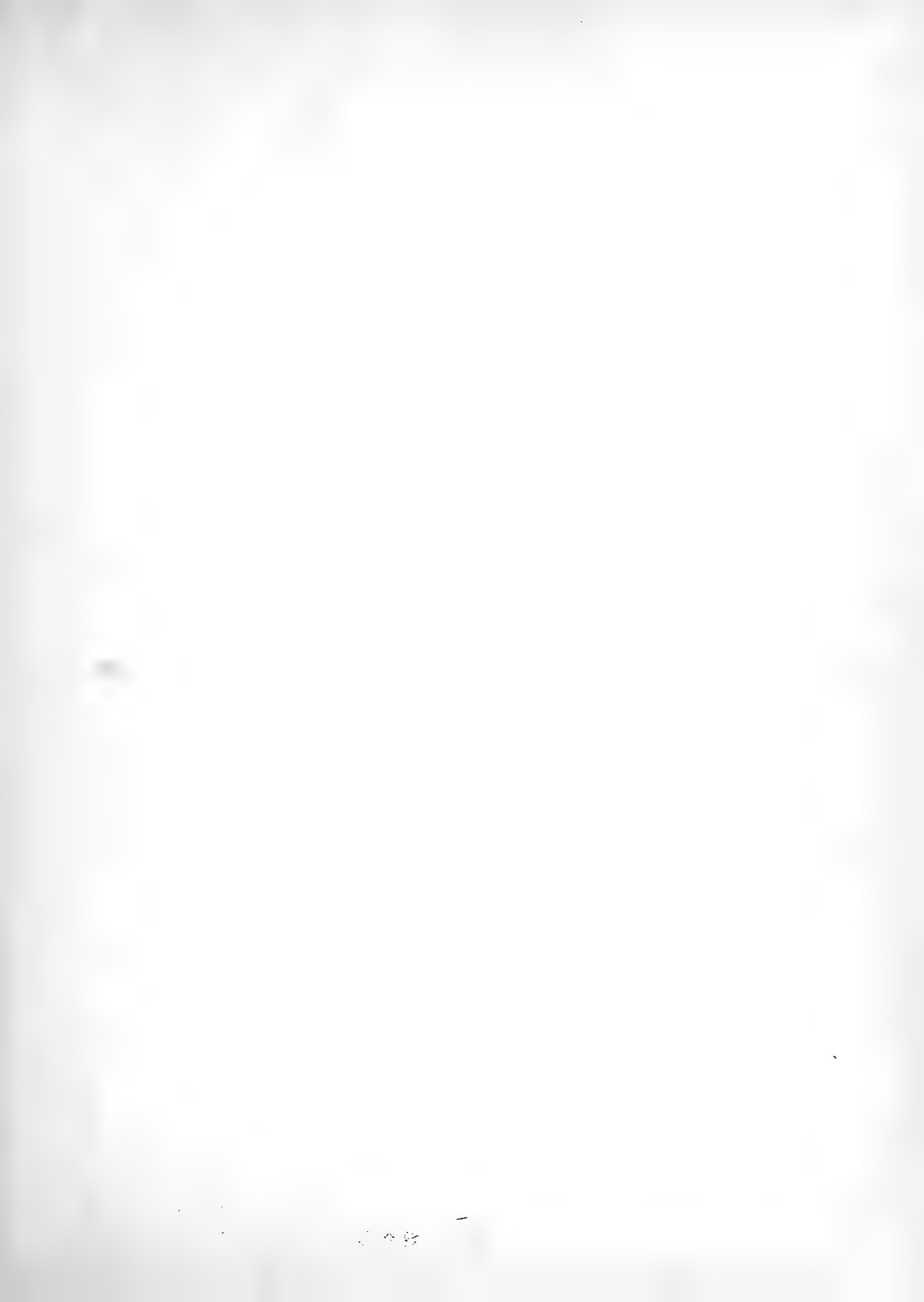
Mus. Hist. Nat. Paris

1-3. FREYELLA TUBERCULATA, n. sp.

4-7. COLPASTER SCUTIGERULA, n. sp.

THE
H.M.S. CHALLENGER
1873-76
SOUNDING AND FATHOMING
The localities at which the Challenger
sailed are marked on the map.

Mr. J. W.



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